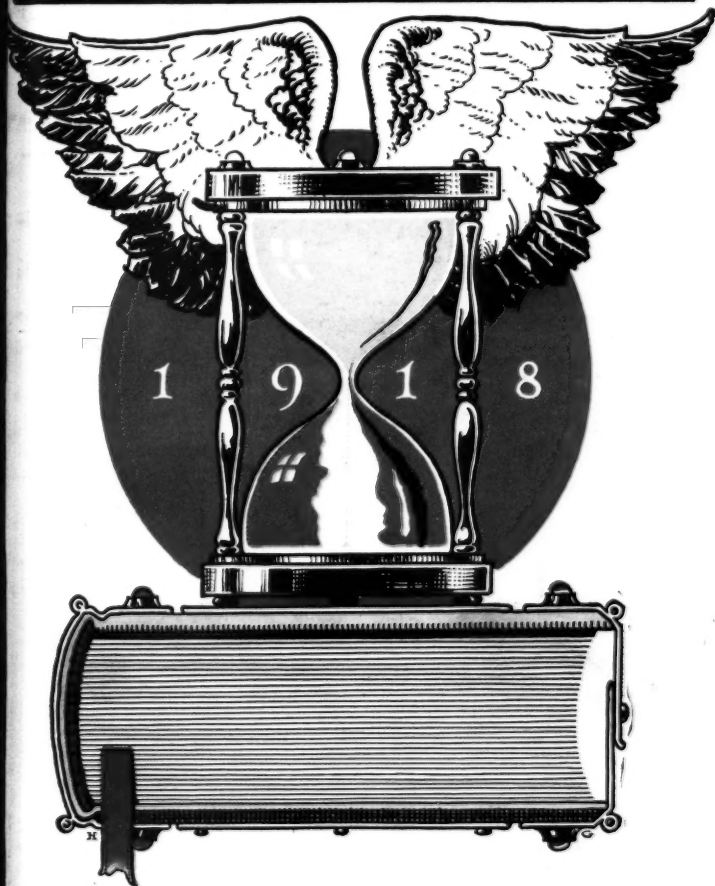


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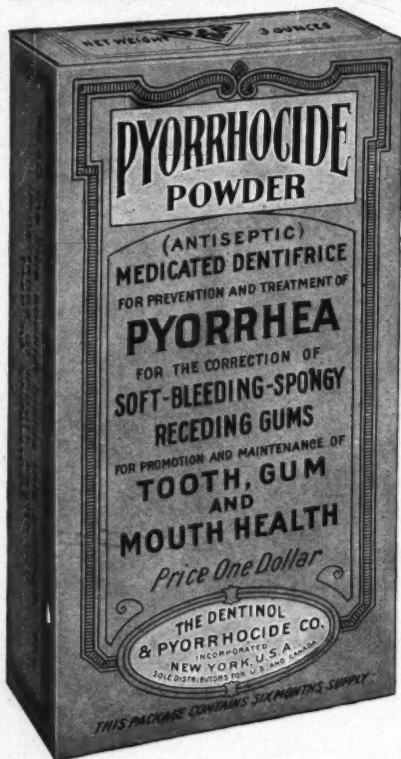
JANUARY, 1918

VOLUME 8, NO. 1



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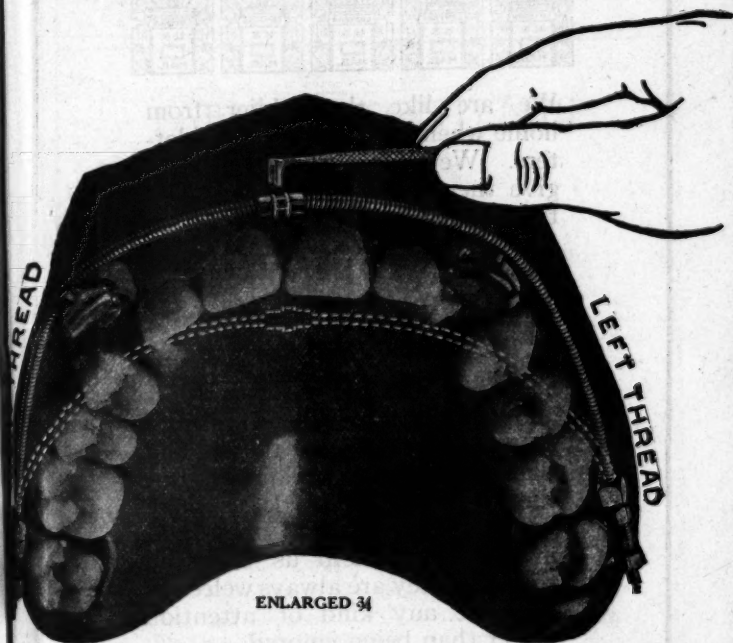
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Grand River cor. Washington**

DETROIT

ORAL HYGIENE

PUBLISHED MONTHLY

EDITED BY WM. W. BELCHER, D.D.S.

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ORAL HYGIENE

A JOURNAL FOR DENTISTS

VOLUME VIII

JANUARY, 1918

NUMBER I

DENTAL TREATMENT IN A PRISONERS' CAMP IN GERMANY

M. RAYMOND, Paris, France
(Demonstrator at the Ecole dentaire de Paris)

The following article from the Dental Record (Eng.) appeared originally in *L'Odontologie*, May, 1917, and is of great interest. The author was taken prisoner at Mauberg and although in the sanitary service, he was interned for two years in Germany contrary to the Geneva Convention. He relates how he went about the organizing of a dental clinic for the relief of the unfortunate French and Allied prisoners. After twenty-five months' captivity he was repatriated. The conditions under which he worked were very primitive. His ingenuity, perseverance and desire to make himself useful to his companions overcame all obstacles.

DURING my long internment I kept constantly in touch with the Ecole dentaire group through *L'Odontologie*, or through my father, and so was kept informed of the various work you had in hand.

Though far away from you I was anxious to collaborate in your work and with this object in view I organized at the Minden Camp, where I was interned, a Dental Service. I was taken from Mauberg with a convoy of wounded who were being sent to Minden Camp. On account of my previous position in the army I was provisionally attached to a hospital installed in a hangar for aeroplanes; the sick and wounded were accommodated on straw. After ten weeks we were transferred to wooden huts (the hospital of the prisoners' camp). From this time, 24th December, 1914, my profession became known to the Germans and I was ordered to treat the prisoners who suffered from toothache. My kit comprised seven old pairs of forceps which were provided by the hospital, so my work had to be limited to extractions without anaesthetics.

In May, 1915, I sent to France for instruments and drugs to enable me to practice local anaesthesia so that I might deal with those men who hesitated to have their teeth removed without anaesthetics. The Germans knew what was taking place and took advantage of the presence of a dentist in the camp to avail themselves of his services which were freely

given. After some time I approached the German medical officer in charge and asked him to purchase at my expense the instruments necessary for me to carry out dental treatment properly, pointing out that I had treated French prisoners and German soldiers who came to the clinic. My request was sent to the General, from whom a favourable reply was received after an interval of four weeks.

I immediately had installed an engine, forceps, different filling materials, etc.

I needed a place to work in and was authorized to carry on in an operating hut provided it was not in use. I therefore came to an understanding with the junior officers whom I had previously treated, and it was an understood thing that the room should be at my disposal after 2 P. M. A notice was posted in the camp and I began work. From this time I saw on an average forty patients a day. Treatment was free, but the more fortunate men were asked to place something in a collection box; the money thus obtained was used for the assistance of the necessitous and sick. Before the patients could see the dentist they had to present themselves before the German doctor, who signed their ticket on which was printed, "To see the dentist." At 1.30 the patients were gathered together in a room for the purpose and brought to the surgery under escort of one or more sentries.

I had them placed in two groups, on one side for extractions and on the other for treatment. I always began with the former. One by one the men passed in to the clinic and I gave them an injection of novocain. When all had been treated in this way they returned in the same order to have the extraction done. In this way I did from twenty-five to thirty extractions in a very short time. This finished I went on with the conservative work. The Germans did not contribute to the purchase of the furniture and instruments, which were paid for by myself. Several times I asked for glasses for the patients to rinse their mouths, but I was told that I must buy them. I also asked for a chair for the patients to sit down, but was refused by the inspector of the hospital, though there was in this very hospital a carpenter's shop where there was wood in plenty, and where all the workmen were French or Belgian prisoners. Later I asked for a small board in order to make a headrest, but this also was refused, and I had to arrange packing cases for this purpose.

In spite of this, Germans came to me daily for treatment among whom, much to my surprise, was the inspector of the hospital who had refused the chair, the glasses and the board.

Once a young doctor did offer me 100 grammes of mercury and 1 gramme of arsenic.

The camp at Minden had no fixed complement, but one might reckon on an average population of 6,000 men of all nationalities.

A few days ago I heard that in certain camps in Germany the dentists are better treated than I was at Minden, but it is said that that depends on the general or the medical officer in charge.

FORDS AND PACKARDS PARKED AT THE NATIONAL IN NEW YORK

J. CRIMEN ZEIDLER, D.D.S., New Orleans, La.

I WAS a Ford. Barber, Logan, Hinman, King, Brown, Brophy, Carr, Ottenlengui, Belcher, Burkhart, 'Spots' Hetrick, Wheeler, Palmer, Arthur E. Smith (There were flocks of Smiths, but there is only one A. E.), and any number of other high priced models lumbered up gracefully to the main entrance of the Astor garage. I rumbled by the back way and was camouflaged in the perfumed exhaust of that great big W. Linford Smith limousine.

The question of where to park was of momentous concern to me but a large water main lying thereabouts solved the perplexing question, and there I went in repose for the four days of the meet.

Frankly I envied the wonderful mechanism of these high priced fellows. I however gloried in their achievements. Many of them had traveled over just as many rough roads as I have, any number of them took routes a great deal rougher than I ever dared risk my flivver upon. The difference between them and 'us Fordies' is that their shock absorbers kept what they absorbed and tucked it away where it would mature into a substance that would prove of value to them later. Their high polish and general air of elegance caused many a flivver to reel and stagger, but equilibrium was later attained and though many of us felt like closing up like a perambulator, we held on for dear life, shoving on our brake with all our might and putting our trust in God. For many years I have rambled in and out different parts of this country, but this was the first time I was ever allowed in such a gathering of the 'cream of motor-dom.' I'll admit I was a bit worn and battered for the wear, but then there was so much radiance about me that I just naturally absorbed some of it and I in turn radiated all over some of the 'first timers.'

By the way, I have a message for all you little Fords running helter skelter about this big country of ours, and you can either take this message and perhaps profit by it on the roadside where one of the big fellows will take the time to pick it up, brush off the dust and find therein possibly a gem. You nestle back home in your little folding garage, year in and year out. Sometimes you put on an extra coat of paint, get a general rubbing down and wobble into a local or state meeting,

get a peep at a few of the 'big uns' and wobble right back home again, while the other fellow whizzes right on past you. Cut that out—cut it out, d'y'e hear and darn soon. Go in soak if necessary for a limousine top, a baked enamel finish and drive right up to the National. 'Can' this hiding your 'flivver behind a bushel.' Get right up alongside these big fellows and absorb some of their radiance. They have it to spare and some of them are real decent about giving it out—why if you're just half the right sort they'll go so far as to loan you one of their silver plated monkey wrenches or their gold plated tire inflaters. Logan, one of the trimmest, one of the most elegant and most talked of at the 'big show' gave me storage for about half an hour when it rained and it made me feel mighty good to be nestled right up alongside of this costly and much talked of bundle of mechanism. Belcher, another wonder for size and elegance found room for me in his muchly sought after garage and you can believe me or not, I felt very much at home—so did Erwin. Then it got all clouded up and the rain began to pour, and a cold wave hit us—I did not mean us, I was all fixed. Ottenlengui wanted to cover me up with his 'seal skin coat, but Hupmobile B. Smith had one with rabbit fur and he argued that the flivver would feel more at home with that sort of protection. Not to cause any hard feelings I decided to crowd myself right into the middle of the warm bunch that came up from the South-Sarrazin, Vignes, Wahl, Woods, Dempsey and a number of other equally as brilliantly finished Packards. About four years ago, a tied, weary and greatly worn our Ford rambled into my home town. By folding my flivver right up tight I made room for him in my portable garage and looked after him for a few days. With tears in my eyes I stood at the cross roads and watched the little fellow disappear into the landscape, realizing what a hard road there lay ahead of him on his way to San Francisco. At that time I felt as though I would never again see this dear little fellow, but time and a good internal combustion had worked wonders and when a snappy, brand new Packard bumped me from the rear I had not the slightest thought that this was Avery, the one time Atlantian, but now a San Francisco booster from the back of his state license to the top of his radiator cap. This fellow took on a new coat of paint, a new limousine body and skidded up to the National out West. He then traded in for a Chandler and now—well his was the Packard that made the dent in my hind mud guard.

And now that I am at a safe distance let me say this to all you big Packards, Royce Rollers, Pierce Arrows and others—don't give us the exhaust and klaxon at the one time when you are passing us will you? Be like Hinman, Logan, Price and a number of others—look into the back seat of us flivvers and sometimes if you will be good enough to tell us about the time that a little Ford passed you on the road and that you gloried

in him, it will give us an incentive to work like the deuce, to brighten up and be with you at the National, anywhere from here in these good old United States to Berlin. If you would accord us little battered and worn out flivvers half the attention that all the other Fords were accorded we wouldn't feel half bad, but they being painted a khaki color did that for them and well do they deserve all they got. From what I can understand they still have many a rough, shell shattered and dangerous road to travel.

Well it's all over now. I may still look like a Ford but I feel like a combination of Packards, Pierce Arrows and all others combined. I'm going to let mine stay in that water main and I'm going to hop on a wat tank. I may not look so graceful and might not be able to travel as fast but I'm going to do my share to smooth out the road so that later on when you are leisurely spinning along, the jolt and jar of a roughened road will not be there to disturb your comfort and—maybe welfare. If everything goes well—well I'm liable to be with you at the next—if not—well you'll know something happened to the "tank" and being all closed up in it I went along—higher than the subscription of the Liberty Loan ever reached and further down than they sent the Antilles.

FAULTY ENAMEL AS A PREDISPOSING CAUSE OF PYORRHEA

GEORGE R. LINDSAY, D.D.S., Denver, Colo.

IN presenting this article to the profession, I fully realize the moral responsibility that I must assume, or that anyone must assume who attempts to add anything to dental literature, and especially that branch of the science pertaining to that scourge of the mouth known as pyorrhea or Rigg's disease, a name which at best only describes one symptom of the disease—a flow of pus from the gums, which never occurs except in advanced stages of the malady, and in a large per cent of cases is not present at all.

Prof. Patterson, in his article on pyorrhea in the second edition of Johnson's "Text Book of Operative Dentistry," says: "Any irritant, of whatever nature, which impairs the integrity and continuity of the gingival margin, may cause pyorrhea, and without this impairment the condition will not be established." This being a fact which is fully accepted by nearly all of those of the profession who have given the subject special attention, it disposes for all time, I hope, of the explanation given by the old-time dentist, namely, that pyorrhea is caused by some obscure agent,—sour stomach, uric acid, Bright's disease, gout, or what not—when the facts in the matter are just the opposite, the pyorrhea always being present for a number of years before constitutional disorders

develop, and is believed to be the cause and not the effect of the trouble by many of the brightest minds in the dental and medical professions today; viz. such men as Hartzell, Billings, Shamberg, Mayo and Cattlett, all having gone on record to that effect.

The writer, for a number of years, having been of the same opinion as Dr. Patterson, namely, that pyorrhea is a local condition, caused by a local irritant which can be cured by local surgical treatment, thus removing the cause, has given much time to research work to discover, if possible, the irritant most commonly present at the gingiva of the teeth of those afflicted with the disease, and in fully 90% of the cases presenting themselves in his practice, and in clinics conducted for the study and treatment of pyorrhea, the cause was found to be rough enamel surfaces and faulty imbrication lines, said abnormality varying in intensity from a condition only detected by drying the tooth and examining with a strong glass, to enamel as rough as coarse sandpaper, and imbrication lines so jagged as to be easily felt by the tongue of the patient; and in all cases the pocket was deepest on the teeth which were roughest, and shallow or absent on those that were smooth, or nearly smooth, as the case might be. In this respect teeth are like people—there are no two just alike—although those teeth which occupy the same relative position on opposite sides of the jaw are nearest to being so.

The writer is also convinced that this condition is congenital, as in numerous cases of parents presenting this type of tooth, it was found upon examination that the teeth of the children were marked in the same way, and showed symptoms of periodental disturbance at a very early age, the congestion always clearing up when the teeth were planed and polished, and the gums assume and retain a perfectly normal condition, which has lasted a number of years, and no doubt will continue in perfect health during the life of the individual, providing the necks of the teeth are kept clean and free from irritants, as the alveolar process is not a temporary organ as some would have us believe, but is permanent and will last as long as any other part of the anatomy if kept free from disease.

The pathology of these cases is easily followed. The teeth erupt, leaving part of the enamel and the imbrication line beneath the margin of the gum. The enamel surface is rough, even ridgy, and the imbrication line instead of being a smooth, over-lapping joint between the cementum and the enamel, is no joint at all, but just a sharp termination on which one can easily catch an instrument of the hoe variety; and very often, in this type of tooth, there is a marked deformity of the upper centrals and laterals at the neck which consists of a flattening, or even a concavity, on the mesial surface, extending around toward the lingual. Those teeth always have deep pockets meso-lingually, and have a tendency to move forward and

laterally in their sockets, which is an early diagnostic sign of the disease. This ridgy condition of the enamel was supposed to be normal by the early practitioners of dentistry, and they copied it in their models for artificial teeth, S. S. W. still having a number of molds marked in that manner, some of them of recent date. The writer has used this style of tooth on many occasions, thinking in this way to attain a more natural appearance in the artificial denture.

These deformities all act as irritants to the gum tissues, and no tissue of the human anatomy will tolerate for long a rough, irritating surface in contact with it. The gum is no exception. Soon this slight irritation sets up a hyperemia, which is characterized by a slight swelling and redness of the crest of the gingiva. The gums bleed on brushing, although there is seldom any discomfort felt by the patient at this time. Years now elapse with a gradual or swift progress of the disease, according to the resistance of the cells and the care given the mouth, the gum tissue passing through all the stages of circulation impairment, known as venous and arterial hyperemia, the color of the gums often ranging from bright red to a dark blue or purplish tint, depending nearly always on the care given the mouth of the individual—the poorly cared for mouth showing marked change in the tissue, while the gums of the more careful person may retain good color and look almost normal even in the last stage of the disease. Natural tone and resistance of the tissue cells of the individual also plays its part and, all other conditions being equal, the greater the resistance in the tissues of the individual, the slower the progress of the disease. In all cases of the disease the delicate septal tissue of the alveolar process is the first tissue to succumb, a molecular death of this organ taking place at a very early date, this condition being brought about through lack of nourishment on account of impaired circulation.

Once the circulation, and thereby the nutrition, of the part is impaired or destroyed, the normal tone and resistance of the tissue are lost and the part is easy prey for the pathogenic bacteria always present in the mouth. Infection may now take place and run its course, which will be mild or virulent, according to the type of infection and the resistance of the tissue of the victim, the care given the mouth, etc.

With the above described type of tooth dental periclasia may appear at a very early age, the writer having had in his practice a case where the teeth were loose and suppurating at thirteen years. Therefore it is imperative that treatment be given early, the ideal time for such work being between the ages of eight and eighteen, thus remedying the condition before the parts become infected and thereby practicing true prophylaxis, not only preserving the health of the gums but rendering the mouth of the patient "a thing of beauty and a joy forever." An ounce of prevention is worth a ton of cure.

WHAT THE CHU-CHU ENGINE TEACHES

JOHN PHILIP ERWIN, D.D.S., Perkasie, Pa.

Prime purpose: To present the truth that, to produce healthy, sturdy manhood, one hundred per cent. dental efficiency is needed.

Materials: Pictures of a speeding locomotive drawing a heavy train of cars, of a round house, of an engineer, and such scenes as might brighten the text. Teach, that wholesome food properly masticated in a clean mouth, insures good health.

Length of lesson, 15 minutes.—*Author's Note*

FRED was not much larger than the boys before me. He lived in a town located at the end of a railroad. Near his home was a big shed for the locomotives. Each day he could hear their ringing bells, shrill, sharp whistles, and their loud chu-chus as they were brought down the tracks, to the large houses where they were kept over night.

Fred called them the chu-chu engines. He was very fond of them. There was nothing made him happier than to ride on the railway train, back of a chu-chu engine.

One day he said to his father, "When I am a big man with lots of money, I am going to buy a chu-chu engine, all for myself and run it up and down the tracks all day. Sometimes I will take you and mamma for a ride."

"That will be great fun," said his father. "But boys who want to run big, strong engines must have big strong bodies. Weak boys make weak men who cannot run chu-chu engines."

Fred had never thought about being strong. He knew his father told him a great truth.

"Papa, can I be a strong boy and a strong man?" asked Fred earnestly.

"Oh, yes," replied his father. "Every boy has a chance to be big and strong."

"How can I do it?" quickly asked Fred.

"Go to the chu-chu engine. Ask it to teach you how to be a healthy man."

"Can this chu-chu teach me all that?"

"All that and much more. Whenever you see an engine watch and listen. It tells a wonderful story to every bright boy and girl; to every one who wishes to learn."

For the next few days Fred thought about what his father told him. He wanted to be a strong man so he could run a chu-chu. How could he learn more about the engines? What did the men do to the locomotives when in the big shed? These were some of his thoughts.

"I know what I will do," decided Fred. "I will go down to the big shed tonight and see for myself. Then I may learn what I wish to know."

That evening, when a big engine rolled slowly into the shed, a little boy stood looking into the open window. It was Fred. He had come along down the road and around the side of the building.

Children, what do you think he saw and heard? I am sure you are all anxious to hear?

There, in the corner of a shed was an engine with a big, strong man working on it and talking. He was saying, "Now my good engine, I must fix you for the night. You must be tired after your hard day's work; after pulling the cars, filled with people, up and down the tracks. I must give you a good night's rest so you will be ready tomorrow, bright and early, for another big trip."

While the man talked Fred saw him open the doors of the engine, take a long poker, clean out the ashes and cinders, and make a fresh, clean fire.

"I can't leave all this dirt in you over night. If I did you would soon be sick and not ready for work to-morrow," said the man.

That evening Fred told his father all about what he saw and heard.

"I learned what the chu-chu wants me to know," laughed Fred. "I thought it all out on my way home. When the man cleaned all the ashes and cinders out of the mouth of the engine that taught me I should clean all the food and dirt out of my mouth every evening before going to bed. The man said his engine would not be ready for work in the morning if it were not cleaned. That means my mouth will not be ready for work the next morning if it is not properly cleaned. My mouth, like the mouth of the engine must have a good night's rest or it will soon be sick. I want to be a big, strong man. I am always going to clean my mouth every evening, just like the man cleaned the mouth of the chu-chu engine."

This pleased the father. "You have learned a good lesson and learned it well," praised the father. "Now see how soon you can learn another."

Fred was very happy. Early next morning he again went to the big shed to see what the man would do to the engine. He was anxious to surprise his father that evening by telling him more about the chu-chus.

Just as Fred looked in the window of the big shed, he heard the man say, "Now, my good engine, you must have a full bright fire today so you can burn all the coal heaped high in the tender for you. No dead spots here and there. Not just a little patch of fire, but a big, blazing fire all over your mouth. Why, you could not pull the heavy train with only a half a fire. No sir-ee."

When the man opened the doors to throw on coal, Fred saw in the mouth of the engine a dancing mass of burning

red coal. There was not one dark spot anywhere to be seen. The whole engine seemed to be on fire.

Soon the man jumped into his seat, pulled a lever, and away, down the tracks, glided the engine, leaving Fred standing alone.

I wonder how many boys and girls before me know the lesson Fred learned that morning. This is what he told his father, I am sure you will never forget it.

While Fred sat with his father about the evening lamp, he said, "I was down to the big shed early this morning and brought home another lesson to help me to be a big, strong man. It is even more interesting than my first lesson."

"Tell me what you saw and heard," said his father.

"The man was making a fresh fire in the mouth of the engine. The whole inside of the chu-chu seemed to be on fire. It was one big blaze. When the strong man opened the doors to throw on coal, I heard him say to the engine, "You must have a full, bright fire today so you can burn all the coal heaped high in your tender. If you have only a half fire, you won't be strong enough to pull a heavy train."

"What did that teach you?" asked the father.

"That teaches me I must keep my mouth and teeth strong and bright like the fire in the engine. When I have a sore tooth I eat on only one side of my mouth. If I lose my teeth, I have only a half fire in my mouth and then I can't chew my food properly. If the mouth of the engine would have only half a fire, it could never pull the heavy train. If I am to be big and strong like the chu-chu, I must have a full set of sound teeth so I can chew plenty of wholesome food to help me grow to be healthy and strong."

"You have done well," said the father. "I am sure you will keep your teeth brighter and cleaner than even before, especially since you have watched the chu-chu."

Fred now was laughing heartily. "But I have not told you all. Something funny happened this morning."

His father looked surprised. "Tell me all about it. What makes you so happy?"

"Why, the engine told me the best lesson when it left the shed this morning. It must have known that I wanted to be a big, strong man for as it rolled away it called to me, "Chu—Chu—Chu. Chu—Chu—Chu."

Chew—Chew—Chew. Chew your food.

Chew your food. Chew your food.

Fred's father now laughed heartily and said, "That was the best lesson of all."

IN REPLY TO AN EDITORIAL—
"DENTAL HYGIENISTS"

A. E. CHRISTIE, D.H., Boston, Mass.

THE International Journal of Orthodontia for September contains an editorial: "Dental Hygienists" which attacks them and the schools where they are trained. We have little respect for opinions expressed so incoherently and with such tiresome repetition; also, the writer makes statements which he cannot prove.

■ The following quotation typifies, by its useless repetition the whole editorial: "As a result of this continuous cry from some men in the dental profession, *certain* state laws have been modified recently to enable dental assistants who have taken a *certain* prescribed course of study to perform *certain* operations upon the teeth." We wonder if the writer has no dictionary in which to look up synonyms for the overworked "certain!" Note the puzzling incoherence of this other sentence: "In further substantiation of the incomplete manner in which uneducated girls *who* are going to be forced upon the profession as dental hygienists, we call attention to an announcement that is being sent out by the Forsyth Dental Infirmary for Children," etc. The phrase construction would make us understand that the "uneducated girls" are to be forced upon the profession in an "incomplete manner." Yet we do not think this was the writer's meaning. If his ideas are too confused for lucid expression, why inflict them upon us at all? Another sentence amazes us by a mistake in grammar, added to the usual repetition and incoherence: "We realize that it is going to be a valuable thing for the Forsyth Dental Infirmary for Children if *they* can impress upon a number of girls who have the preliminary education which *they* require to spend twelve months in the supposition that *they* can learn everything in regard to the subjects mentioned in the announcement." The writer evidently thinks the plural pronoun "they" is correct in referring to the singular noun "Infirmary!" Or perhaps, since the full name is "Forsyth Dental Infirmary for Children" this pronoun refers to them. But obviously he cannot mean that the Children "impress" or "require." Unless he enjoys being ludicrous, we would suggest that he study English grammar and composition before attempting any more editorials. Consider the following arguments, extracted with much difficulty from his rambling dissertation: (1) The writer does not believe "the dental hygienist has the right to distinction or standing that the medical nurse has." (2) He thinks "the term dental hygienist is an unfortunate word." (3) He attacks the methods of the Fones School for Dental Hygienists. (4) He attacks the Forsyth Dental Infirmary School for Dental Hygienists. (5)

He believes "a successful prophylactic operator should have all the knowledge a dentist possesses and some more besides." (6) It is foolishly assumed that the instruction at Forsyth Dental Infirmary tries to make dental hygienists into dentists, as shown by the following citation: "We should have a course of study which will make dental nurses out of them and not try to make dentists out of them."

First we answer argument (2) "the term dental hygienist is an unfortunate word." The writer states that the profession has not been willing to "permit a person who has received a short course of training to be called a dentist, yet provision has been made in some places to call *them* 'dental hygienist.'" Of course we realize that no one who has had only a short course should be called a dentist. Such a person has not fulfilled requirements for the degree of D.D.S. But it is entirely right that one who has been trained in a school for dental hygienists and passed required examinations be called "dental hygienist." This is argued against as a high-sounding title which will confuse and deceive the public. But we credit the public with enough intelligence to distinguish the term "dental hygienist" as different from "dentist." The word "hygienist" is further objected to because "one versed in hygiene is certainly one that is versed in more than the scaling and cleaning of teeth." This holds true in that Gould's medical dictionary defines hygiene as "the science of health." But *dental* hygiene means the science of *dental* health, not to be confused with the general term. The dental hygienist's training teaches dental hygiene in addition to prophylactic cleaning. To substantiate this statement, we refer our readers to many prominent dentists and physicians who lecture at the School for Dental Hygienists, Forsyth Dental Infirmary, Boston. The writer also objects to the term "hygienist" because it is used for medical officers of health "who have spent at least six years in the study of their profession." Again we remind him that "hygienist," modified by the adjective "dental," has a different meaning from the general term. His argument against the words "dental hygienist" is as pointless as if one asserted that dentists should not be called "Doctor" because they are not *medical* doctors.

The writer states that "the average line of training that is given in the dental college is not sufficient to enable the average dentist to properly treat, clean, and scale teeth." He thinks "the work which is supposed to be delegated to the dental hygienist is entirely of too much importance to be left to one who has less knowledge than that possessed by the average dentist." We think it quite possible that the "average dentist," one who does not specialize in dental prophylaxis, lacks the training necessary for proper scaling and cleaning of teeth. We have heard such statements from dentists and from dental students. We might also quote many patients who received

prophylactic cleanings during a special adult clinic at the Forsyth Dental Infirmary. These patients invariably commented on the dental hygienist's thoroughness and excellent results. They said their dentists did not do so well for them in this line. Some doctors and dentists also received prophylactic cleanings and praised the dental hygienist's work very highly. A dental hygienist, far from having "*less knowledge*" than the "average dentist" about proper cleaning and scaling of teeth, has considerably *more knowledge*. It should be remembered that her training lays special emphasis on dental prophylaxis. Many a dental student receives only one or two demonstrations in scaling and polishing, after which he starts on patients without much further drill or supervision. But the dental hygienist is drilled for several weeks by first practicing on a model. She receives careful supervision and individual instruction as to finger supports, positions while operating, and all the proper technique of using prophylactic instruments. When she changes from dentech to patients, the same supervision and instruction by an expert in prophylaxis are continued throughout her course. Because this is her specialty, the dental hygienist performs many more prophylactic cleanings than the dental student whose work is spread out to cover every branch of dentistry. The dental hygienist's training in theory is as thorough as her practical instruction. To receive her diploma, she must pass examinations in dental prophylaxis and in every other subject taught at the school. Massachusetts and some other states require that the dental hygienist also pass examinations given by the State Board of Dental Examiners. She is then registered and receives a license. We do not think the writer of the editorial ever saw any prophylactic cleanings performed by graduates from a school for dental hygienists. His sweeping statements against their work can only be explained by ignorance.

Throughout the editorial he repeats, with characteristic tiresomeness, that dental hygienists have had only "a few weeks' course." This is not true. Even the Fones course, which is the shortest, has been lengthened so that the last class received instruction for seven months. We ask the dental profession if seven months can justly be called "only a few weeks?" Perhaps he refers to dental hygienists who have not graduated from any school but were taught for a few weeks by some dentist at his office. The laws of Massachusetts and some other states make such insufficient training illegal and require that every dental hygienist be registered by examination. It is no indictment against registered dental hygienists if some dentists have violated the law by employing non-registered ones. Some states do not even have laws to prevent dentists from training women employed in their offices to act as dental hygienists. But if the writer resides in such a place, he should specify that fact and refrain from sweeping assertions.

In argument (1) he does not believe "the dental hygienist has the right to distinction or standing that the medical nurse has." We answer that the dental hygienist does not even wish to be called a nurse. Her legal name is *dental hygienist*. Except in a few instances, she does not do the work of a medical nurse, any more than a dentist does an M. D.'s work. Both have their sphere of activity and do not infringe on each other. As to distinction or standing, the dental hygienist who "makes good" is entitled to these in the dental profession just as truly as the medical nurse in the medical profession. If the dental hygienist is not highly esteemed, how can the writer account for her being employed by progressive and successful dentists? We could cite many dental hygienists whose salaries range from eighteen to twenty-five dollars a week. From these facts we conclude that the dental hygienist is as much valued by the D.D.S. as is the medical nurse by the M.D.

The writer cannot prove the ridiculous assertion that dental hygienists are an insult to the medical nurse, any more than he could prove the dentist to be an insult to the M.D.

With characteristic vagueness he also asserts that the medical nurse is compelled to have a "high degree of preliminary education" as contrasted with the dental hygienist. He should be specific and state that some training schools for medical nurses require the four years' High School course. According to our information, some training schools require less than this, and many are not registered in their respective states. We do not write this to criticize any training school for nurses, but only to refute the writer's disparaging and untrustworthy statements against the schools for dental hygienists. If he would take the trouble to become accurately informed, he would find that schools for dental hygienists demand the same preliminary education in their candidates as those for medical nurses. Two of the three eastern schools for dental hygienists have state registration. We doubt if nurses' training schools, in proportion to their far greater numbers, have any better record.

It is also wrong to think the comparative shortness of a dental hygienist's course would make it inferior, for the learning of her profession, to the medical nurse's training. Instruction should be judged for its quality and purpose rather than for the length of time it requires. A dental hygienist can learn her profession in less time than the medical nurse because the work is not so general.

We ask how the writer can call the dental hygienist's course "a joke" when it is dignified by examinations given by the State Board of Dental Examiners?

Fones' School for Dental Hygienists, Bridgeport, is attacked in his third argument. Because the book "Mouth Hygiene" outlines a course of instruction, he jumps to the con-

clusion that this is the only book studied there. But we have found that several other text books are used, among them "Kimber's Anatomy and Physiology for Nurses," a standard work. We are surprised that the writer finds fault in matters where he is so inaccurately informed.

The fourth argument attacks the Forsyth Dental Infirmary School for Dental Hygienists. We find the assertion that it is impossible to teach "in twelve months even a rudimentary knowledge of all the subjects outlined in the announcement." We answer that it is possible because it has been done. The first class recently graduated, passed examinations in every subject taken up. We remind the writer that at least *some* knowledge of a subject is absolutely necessary for passing an examination in it. Exhaustive studies are not essential in order to become a good dental hygienist. A working knowledge can be obtained from a fairly general course in theory, greatly increased by practice on patients. The Forsyth Dental Infirmary does not try to "impress" on its pupils that "they can learn everything in regard to the subjects mentioned" in twelve months. It is always understood that no course of study in a given subject can teach it exhaustively. The open-minded person expects to keep on learning as long as he lives.

The writer argues that dental colleges might just as well close their doors since the Forsyth Dental Infirmary can cover the same subjects in one year which they teach in four years. But we answer that the Forsyth Dental Infirmary can do this because dental hygienists do not require such exhaustive knowledge along these lines as dentists. In many cases, the dental hygienist needs only enough knowledge to enable her to intelligently assist the dentist, as for instance when he extracts teeth. But of course the dental student studies extracting more thoroughly because he has to do it himself.

It is asserted in argument (5) that "a successful prophylactic worker should have all the knowledge a dentist possesses and some more besides." This is not at all necessary since the dental hygienist practices only one branch of dentistry, in which she has specialized. Because dentistry is a part of medicine, does anyone assert that dentists should take a medical course in order to be proficient in their profession?

The writer foolishly assumes, in his sixth argument, that the Forsyth Dental Infirmary tries to make dentists out of dental hygienists, as shown by the following quotation: "We should have a course of study which will make dental nurses out of them and not try to make dentists out of them." No one is trying to make dentists out of dental hygienists, least of all the Forsyth Dental Infirmary. We challenge him to find any statement in the announcement that can prove his assertion.

In conclusion, it is questioned if "the legalizing of dental hygienists under the present plan has been a step forward or a step backward in the proficiency and standard of the dental profession." We are convinced that the best men consider it an advance. Legalizing the dental hygienist raises her standards of work, because the law makes her meet many definite requirements. Dental prophylaxis is constantly becoming more important, yet a large number of dentists do not have the time to perform thorough and regular prophylactic cleanings. In this field, as well as in general assisting about the office, the dental hygienist can render such valuable service that we believe no progressive dentist will want to do without her.

WAR DENTISTRY

FIRST LIEUTENANT C. SPEAKMAN, D.O.R.C., U. S. A.

SOLDIERS, to the number of a division and a half, have been kept at the front, through the services of the dental surgeon. This statement was made to me one Sunday morning in early 1916, by an official in the War Department in Paris, whom I met in 1915 during my service in that year, and upon whom I called to inform him I had returned to France, and had brought from America a fully equipped, dental field ambulance—in other words, an operating room on wheels. "You could not have brought to France a more welcome gift." My friend went quite at length to tell me of how his own dentist, a professor in the Ecole Dentaire of Paris, had suggested such cars to the dental profession, and was the instigator in outfitting the first that were sent.

Mr. Herbert Cory, an American newspaper correspondent, as early as 1915 saw the enormous need of well-conditioned mouths at the front. We happened to return to America on the same boat in that year, and had many talks about the dental conditions in the army, the hospital service of the dental surgeon, and the result that he was obtaining in the so-called jaw cases, so that it did not take very much urging upon the part of an American Ambulance official for me to design, equip and take to France the dental ambulance, photographs of which illustrate this article. I also found supply houses most eager to contribute to the supplies which I took with me, and I could have filled the car many times over through their generosity.

When I returned to France with the car, I again met Mr. Cory, and together we visited both the French and English cars and conversed with their crews. All this, and his conversation with me, led to a story to his American papers, in which he started out with the assertion that a division and a half had been kept at the front by our efforts, the statement which I had made to him. He went on to say that today the dental

surgeons are taking their kits back of, and into the lines, where they are giving men relief, and making a masticatory surface for them, directly under fire.

The dentist is becoming almost as much of an army authority as the army surgeon; but it was not this way at the beginning of the war. England tried to restrict the enlistment of her men to those with sound teeth (as we are trying to do at the present time), but she found the need of men was too great, and the bars were let down. France had too many greater things to worry about and she took her men as they came, even if they were toothless. But after the flurry of the first few months and war began to settle down into a business, the authorities listened to the surgeons, who insisted that the wounded man whose teeth were bad made a retarded recovery. Men were sent home on sick leave whose only trouble was their molars. When they were fixed up, the man got well, and it became evident that the soldiers' teeth must be cared for.

The time-worn and threadbare assertion of Napoleon that "the army travels on its belly" has been supplanted by the assertion that recently appeared in this journal that "a soldier travels on his feet." But in order to travel on his feet he must have caloric force, and the caloric force must come from his stomach, and his stomach must be given force properly prepared. The army ration is an "iron" one, even when it does not come in cans. The meat is probably tough, and the bread flint-like. The man who cannot masticate bolts his food and loses strength and endurance. "Fix their teeth," said the high command, "but fix them at the front." The soldier's morale is impaired by absence from the line, and he loses that hard fatalism he must have to be a good soldier. He becomes a civilian in uniform. Gallieni, the late Minister of War, realized this. On February 26, 1916, he suggested to President Poincare, after his observation of the usefulness of the dentists for something over a year, rendering aid to their comrades in an offhand way, that they be taken from the lines, regularly appointed a part of the medical service, and be given the rank of "Sous-Adjudant." Godard, Chief of the Service de Sante, concurred with Gallieni's suggestion, and it became an order on March 3, 1916.

The average military tooth is a sad affair, and the French tooth is little better. Probably no average inhabitant of thirty; who is now a soldier in the lines, expects to have more than a quorum of the teeth that he began life with, and he knows less about their care. He may never have used a tooth brush in his life. He is used to getting along with the toothache, and to chewing on a tooth and a half. It seems to him the normal order of things and, once his teeth are in order, it is quite wonderful the appreciation he expresses and the pride he takes in them, and the care that he gives them after he is taught to do so. When we visit a hospital these days, constantly we see

in the soldier's little personal kit, or on the little grey or white table at his cot's side, a tooth brush.

The dentists who have been sent to the front have demonstrated their usefulness. The division and a half, which would have otherwise been sent home except for them, is evidence. Thousands of them have been relieved from pain and have been given better masticatory outfits. Practically every soldier needs some dental care. "The dentists have never been given a chance to show their good-will towards France, as the physicians have," said Mr. E. Piatt Andrews, who directs the transportation service of the American Ambulance. Their willingness to help is shown by the abundance of materials and equipment which they accumulate and take with them.

The American car is the eleventh car to take the field for France. Two of the others are English gifts to France, and the rest are of French design and equipment. It is interesting to know and to show the manner in which France is using her damaged human material, that these cars, i.e., the French, were very largely built by this same "damaged human material." I saw a carpenter, who had a wooden leg, working upon one, and another ex-soldier, who had but one arm, painting. The English cars are heavy. They weigh $4\frac{1}{2}$ tons. The French cars are somewhat lighter. The American car, which is mounted on a three-quarter Buick chassis, weighs but 2 tons.

All the cars carry a large stock of supplies stowed away in lockers. They have a sterilizer fastened to the inside of the car, and the water is boiled by means of gasoline burners. They all have water-tanks, little stationary wash-stands, the usual engine and chair, and a lathe for grinding is at the rear, in all three types of cars. The French, for emergency night work, use a gasoline torch; the English, the carbide, such as was used with our first automobiles. The American car has an electric dome over the chair and uses the stored-up current from the battery of the car. The particular advantage of an ambulance, equipped as I have described, is that it may be telephoned for, and go from place to place, giving relief to men in several different regiments of the division to which such a car may be attached. In this way men are not compelled to leave their particular sectors and journeys to wherever the car may be stationed. It has a further advantage of being easily withdrawn to the rear during an attack. Consequently, it is not in danger of being demolished.

The French and the English personnel of the cars consist of a dental surgeon, his assistant, a mechanic and a chauffeur. But it always struck me as a saving in men if the mechanic could at the same time be a chauffeur. Necessarily, it is not possible to work during transit. Many times I have been roused out of a sound sleep and given relief to some poor "poilu," who had been enduring his gum abscess through the

long hours of the night and which, because of the cold night air, pained him all the more. Likewise to the soldier with a congested pulp in a molar, who may have walked several miles to obtain relief.

We visited and talked with Lieutenant Taylor of one of the English cars—namely, Number Ten in the records—and Taylor said, "We have seen the day when the man sat on a soap-box and we did what we could. But the Germans saw it first," said Lieutenant Taylor, and he should know for he was in Brussels when the Germans came, and for a time they seriously considered shooting him as a spy; but they let him work in a hospital until Von Bissing took charge of affairs. Von Bissing was not soft in his methods, and Taylor got out. He escaped from Belgium by the sea-end of the line, crawling under the barbed wire and walking for miles in the mud. At that time, he said, the Germans had a dental post every 10 kilometers. Every man passed an oral inspection. If he needed care, he got it. The German surgeons thoroughly realized that a wounded man makes a better recovery if his teeth are in good condition. No doubt lives have been saved in this way.

Mr. W. H. Dolamre, L. R. C. P., in the course of his presidential address at the thirty-fifth annual general meeting of the British Dental Association, said that "never had the disasters which may follow the neglect of the teeth been more apparent than at the present time." It needed but the cursory examination of the recruiting officer to prove the truth of what the association had said, that disaster did follow the prevalence of this neglect. It is no secret that the army authorities first refused men with bad teeth, but so many such presented that later they were admitted, irrespective of their dental conditions. Having been admitted, it was found that either their teeth must be treated or these men would not be available for foreign service.

Years ago, school dentistry and the teaching of oral hygiene to our school children had been advocated, but the advice was disregarded or taken up grudgingly. The importance of this was admitted, though its practical application was neglected.

Now we have come to realize that, when the teeth are diseased, the lack of masticatory power is secondary to the harm resulting from the forming of centers, whence general septic infection starts. Then, too, there is the need of dental aid in the treatment of injuries to the jaw and of maxillary fractures, and especially the designing and fixing of interdental splints, which is a very special work, in which experience is gained only after many years, with special opportunities.

It has been observed in many of the cases of fractures of the jaws which reached the base hospitals, that infection had

set in, and in some cases repair had commenced, and fibro-osseous regeneration had taken place. The field ambulances, equipped as they are with appliances to rapidly make a splint for the fracture, would overcome this to a great extent, and with the present and improved methods of preventing infection, it seems very probable that the dental surgeon will be the means of lessening the time of treatment and obtaining far better results.

My notes and observations go to show that the soldier wounded in the jaws requires, in many instances, a much longer time to make a complete recovery than one wounded in the body. This is due, of course, to the desire upon the part of the general surgeon and the dental surgeon to dismiss the patient with the least possible disfigurement. Wounds of the body are covered by the clothing and a soldier does not so much mind a cicatrix on the arm, the shoulder or the thigh, but the scar left from a wound of the jaws where there is a loss of more or less fibrous and especially osseous tissue, is a very conspicuous and lasting facial disfigurement.

Every conceivable effort is being made by the surgeons, who are specializing in facial wounds, to obviate this, and the aid that the skillful dental surgeon is giving them is only measured by his ingenuity and ability to quickly bring the remaining fragments of the jaw into juxtaposition and hold them there, by artificial means; thus bridging the intervening spaces with fixtures over which the surgeons may stretch the soft tissues and build for the wounded man a new lip or new cheek, with the least possible disfigurement. Later on, bone grafting, which is becoming more and more universal, supplies new osseous structure, but until the time when the surgeon can do this, the dental surgeon must supply the fixture for holding the parts in place. At the beginning of the present war and before the centers for prosthesis were organized, this was not possible and the surgeon made out the best he could and well indeed under the circumstances. But in order to obtain the acme of results, these cases later on had to be operated upon, the regenerated tissues broken up and put back into their normal position. This is one reason why the so-called jaw case is so long in a hospital.

It is my contention that the trained surgeon, skilled in caring for these particular cases, working in conjunction with an equally skillful dental surgeon, who sees the patient immediately after he has been wounded, may do away with this long-drawn-out reconstruction and obtain far better results in lessening facial disfigurement.

The Military Surgeon.

THE NAVY DENTAL CORPS

IN light of the medical profession's full acceptance of dentistry as an important health factor, it seems incredible that up to 1912 the need of the dentist was not recognized in the navy of the United States. Previous to this period, an occasional dentist was employed, who came into the service as a pharmacist for dental duty with pay at \$60 per month and allowed to charge for materials used. Five years ago when the Navy Dental Corps was established there was only one dental officer and an assistant for the whole Atlantic Fleet!

The ratio of dentists employed in the Navy Dental Corps is on the basis of one dental officer to one thousand men. On August 16, 1916, thirty commissioned dental officers supplied the needs of the entire Navy and Marine Corps. The government is not giving out data as to the exact number of enlisted forces during war time but it is estimated that the present enlistment calls for about one hundred and five dentists. This number is increased with the strength of enlisted forces. The excess war strength is filled by reserve dental officers who have the same rank and pay as those regularly commissioned but are not entitled to retirement or pay on account of length of service.

At the present time a man entering the regular commissioned Dental Corps of the Navy must serve two years on probation, after which he is appointed junior-lieutenant, and his commission dated the day of the original appointment. The pay of the junior-lieutenant is \$2,000 annually, with an allowance of approximately \$432 for quarters and \$120 for light and fuel, a total of \$2,552 per annum. After five years service he must pass an examination and if successful, is promoted to the grade of lieutenant, corresponding to the title of captain in the army.

At each succeeding five year period he is advanced in rank and receives an increase of ten per cent. in pay. After serving twenty years the rank of lieutenant-commander is reached. The salary limit is \$4,000 per annum with an allowance of \$900 for fuel and light.

A member of the Navy Dental Corps is eligible for retirement after thirty years which is compulsory at the age of sixty-four, with three-fourths pay based on the average annual compensation received during the period of his service. No allowance is made for quarters during active sea service, but there is a ten per cent. increase in pay over shore duty.

The uniform of the dental officer must accord with his rank. During the two years probation period he wears the ordinary service uniform, which he must provide at his own expense; viz:—two suits of blue, \$38 to \$48 each; six suits of white, \$9 to \$17 apiece; blue and white caps, \$7 each. After

receiving his permanent appointment he must provide for himself service dress and full dress uniforms, costing \$500 to \$600.

The operating rooms of the dental surgeon may be located at one of the numerous navy yards, aboard ship, or at a foreign station. The services rendered comprise that of any first-class dental office, except gold fillings, crown and bridge work. Root canals are treated and filled according to the latest methods. The extracting of teeth is comparatively rare, only in case of broken down roots or chronic abscess. All materials and equipment is furnished by the Government. At all times the dentist is under the general supervision of the senior medical officer of the ship or station where employed.

The equipment furnished is that of a well appointed office and includes electric engines, fountain spittoon, electric switchboard and attachments, steel operating cabinets. Ionization and X-ray machines are installed at some stations, but in any event all necessary dental radiographs are made at the nearest hospital or hospital ship.

Instruments are sterilized by boiling in water, containing a small portion of sodium borate (borax). This has been found superior to bi-carbonate of soda as it does not attack aluminum instruments. One of the most complete and best equipped dental units of the navy is at the Brooklyn navy yard. Here are employed six dentists, and six enlisted men are detailed, two of whom make appointments and keep up the records. The others assist operators as their services are needed.

The enlisted men of the navy are not compelled to attend the dental clinic. They voluntarily seek its services. The only time when they are forced to see the dental surgeon is when in pain; such services are rendered without an appointment and at any time, after which they are placed on the waiting list and sent for when opportunity presents. Appointment cards are forwarded by mail and the men present themselves at the time specified. The present status of the navy dental surgeon is below that of the Army Dental Corps. In view of the liberal provisions made for the Army Dental Corps at the extra session of the 65th congress, the Navy Dental Corps will undoubtedly be placed on the same liberal basis. The legislative committee of the National Dental Association, of whom Dr. Homer C. Brown, Columbus, Ohio, is chairman, have been requested to favor similar legislation for the navy as has been enacted for the army.

Thus the part of the school in the progress of dentistry was of great value, yet the future can be made greater than the past if the school associations as a unit realize that the success of dentistry is obtained only through mutual co-operation of the practitioner and the school, and vice versa.

It should be realized by all concerned that the function of the school is by far greater than an annual distribution of diplomas.

With the modern facilities of transportation there is no reason why it is not possible to gather former students monthly, or quarterly, and discuss various problems pertaining to the practice of dentistry, help with new ideas; in other words, bring into the gathering an animating spirit which lifts the practice from mere mechanics and places it on a par with the medical profession.

Now, there is the case with the dental societies; somehow they do not seem to functionate in the right way. There is always a disappointment following an attendance at some of the meetings, and makes one feel that another chance is missed to promote the interests of dentistry.

It is always the few that are willing to do all the work, whether capable or not that matters little. The work is being done, but new ideas as well as originality are lacking in selection of the papers, in arranging for clinics.

Often it happens that the same clinic is being thrust upon the members several times during a season; of course with slight modifications, but it is the same old stuff, and the entire procedure reminds one of a department store with various wares on display. Here is "blocking the nerve" demonstration; there, fixing the mouth "a la Supplee," ad finitum. And so on, one rushes from table to table to find something new, and in disappointment leaves the place, swearing vengeance never to attend another meeting.

It is a fact, worth while considering, if dental societies are to functionate as an integral part of the profession and work for the interest of the entire profession, rather than a few that have a "stand in."

That the selection of officers should not be left to groups, but rather to the entire membership of the society, thus enabling to elect the man that merits the confidence of all present. It is not paternalism that's desired, but success of the profession, hence it is the duty on the part of the members of the society to see that only men with ability should look after such interests and be appointed to various offices.

To gather the pearls it is imperative that the principle of co-operation should be thoroughly understood by the dentists and its application should be practiced wherever opportunity for such presents itself. Thus the profession will be the benefactor of such practice, with its accompanying benefits for the individual dentist.

Progress means work; working we progress.

CORRESPONDENCE

Editor Oral Hygiene:

I thought you might be interested to know that Peddie Institute has this year employed me to make an examination of the teeth of its boys.

It is, I think, the first preparatory school in the country to take this step.

The results were as follows: 249 boys examined; the mouths of 56 were in good condition, having just been to dentists before they came to school; 153 were given prophylactic treatment; 17 teeth were extracted; 53 teeth besides above needed extracting; 32 teeth needed crowns; 419 cavities were found.

The school has ruled that this work must either be done at the boys' first vacation or done here in town. Very truly yours,

E. C. STEINSIECK, D.D.S.,
Kingston, N. J.

Editor Oral Hygiene:

Having served as examining dentist on the Marlon Co. draft board, and after examining the teeth of nearly five hundred men, from all walks of life, I was more than surprised at the condition I found. Having practiced dentistry now for nearly forty years, I have run across nearly every possible condition, and on reading reports and statistics from other members of our profession, I was beginning to think that the teeth of the American people were fast going to the "bow wows," and that in a few generations we would be a toothless race, but after my work on the board I have about changed my opinion.

I was not able to keep a detailed report of the work, as we had to work so rapidly. All the government required was a diagram showing the missing teeth. Each man was provided with a blank on which was to be recorded his entire medical inspection. This blank contained the diagram of the teeth, and all that was necessary was to cross off the missing ones; also a foot note to notice any abnormal condition found.

I found in the entire bunch of men, at least eighty per cent. with perfect teeth. Some, of course, had teeth filled, and a great many had every tooth, and not one filled. Five cases of pyorrhea were all I could find. Two men were exempted on account of missing teeth. Three cases of absolutely "dirty" teeth, showing no care whatever. Two of the men were wearing full upper dentures, and both were accepted. Some needed dental work, but nearly all had taken good care of their teeth. One of the men claimed to be subject to epileptic fits, but I could find no scars on the tongue, caused by biting that organ, and it was found he was simply trying to evade, and was taken. I found two cases of syphilis. These men were turned down. And last but not least, a genuine case hermaphrodite, in which both male and female organs were present. The board decided it would be unwise to send this person to the training camp for the good of the morals of the rest, so he, or she, whatever it was, was excused. So taken on the whole, I was more than surprised and pleased at the result of the examination. It goes to show the people are taking care of the teeth, largely the result of our teaching, and I believe the only way to get an exact idea of the condition, is not to base our calculations on the cases that come to our offices, but to take from the cases picked up here and there and everywhere, and I am sure we will conclude that we are far from being a toothless race.

E. H. RAFFENSPERGER, D.D.S.,
Marion, Ohio.

EDITORIAL

WM. W. BELCHER, D.D.S., Editor

186 ALEXANDER ST., ROCHESTER, N. Y.

Oral Hygiene does not publish Society Announcements, Obituaries, Personals, or Book Reviews.
This policy is made necessary by the limited size and wide circulation of the Magazine.

INDUSTRIAL DENTAL DISPENSARIES

IT would be interesting to know the exact number of free dental dispensaries in the schools, asylums, and penal institutions of the country. Nearly every week we learn of new ones established or in contemplation. The Industrial Dental Dispensary is a new development and we present herewith a fairly accurate and complete list. We would be pleased to have our readers correct any mistakes; also inform us as to firms planning installation of dental dispensaries. The first industrial dental dispensary in America, so far as our records show, was that of the Armstrong Cork Co., Pittsburgh, Pa., established in 1911. This is unique in that it furnishes artificial dentures, crown and bridge work, as well as operative dentistry free to its employees. A number of other establishments render free services in part or, as in the case of the Colorado Iron and Fuel Co. and the Pocohontas Coal Co., free services to the children of their employees. The majority of industrial dental dispensaries render services at cost or less and allow their employees to pay for the same in weekly installments.

The Alameda Co., Oakland, Calif.

The Amoskeag Mfg. Co., Manchester, N. H.

The Armstrong Cork Co., Pittsburgh, Pa.

The Avery Co., Peoria, Ill.

The Bailey Company, Cleveland, Ohio.

The Bausch & Lomb Optical Co., Rochester, N. Y.

Bloomington Bros., New York City.

Chicago Telephone Co., Chicago, Ill.

Cincinnati Milling Machine Co., Cincinnati, Ohio.

Colgate Co., Jersey City, N. J.

Colorado Fuel & Iron Co., Colorado.

The Crane Co., Chicago, Ill.

Dress and Waist-Makers Union International Garment-Workers, New York City.

T. Eaton Company, Limited, Toronto.

The Emporium, San Francisco, Calif.

Filene Co-operative Association, Boston, Mass.

Firestone Tire & Rubber Co., Akron, Ohio.

Forbes Lithographic Co., Chelsea, Mass.
B. F. Goodrich Co., Akron, Ohio.
H. J. Heinz Co., Pittsburgh, Pa.
D. H. Holmes Co., New Orleans, La.
J. Hood Rubber Co., Watertown, Mass.
Inland Steel Co., Indiana Harbor, Ind.
Joseph & Feiss Co., Cleveland, Ohio.
Kimberly, Clark Co., Neenah, Wis.
Larkin Co., Buffalo, N. Y.
Lord & Taylor, New York City.
Macy Mutual Aid Ass'n, New York City.
James McCreery, New York City.
Metropolitan Life Insurance Company, New York City.
Montgomery Ward Co., Chicago, Ill.
Morris & Co., Chicago, Ill.
N. Y. Telephone Co., New York City.
Pocohontas Coal Co., West Va.
Schrader & Sons, Brooklyn, New York.
Sears, Roebuck Co., Chicago, Ill.
Tennessee Coal & Iron Co., Birmingham, Ala.
Wanamaker Store, New York City.

LEST WE FORGET

THE legislative committee and officers of the National Dental Association are open to sincere congratulation, and the thanks of the profession are due them for work well done in the successful outcome of their efforts in the enactment of legislation raising the rank of the army dentist and exempting dental students from military service until the completion of their college course. But we should not forget that this is the culmination of twenty years' work by dentists whose efforts have been forgotten. They paved the way, planted the seed, watered them with the sweat of their brows. Aye, their tears. We are at war. A united profession of 20,000 members back of the movement. It is the logical moment. We pluck the bouquet of flowers with little thought of the pioneers whose early efforts made it possible.

REPORT OF EASTMAN AND FORSYTH TABLET FUND

THE chairman of the committee, Dr. Henry E. Germann, Cincinnati, Ohio, in his report to the National Dental Association, states that ten thousand circular letters were sent out, soliciting subscriptions from individual members. The returns were a little over \$300 in about four months, not enough to pay for the printing and postage. Rather than go to the expense of soliciting the balance of the 8,000 members of the National, it was determined to send a circular letter to the secretary of each component, asking the society to contribute twenty-five cents per capita, or appoint a committee asking for subscriptions.

The following is a statement of the receipts and expenditures to date:

RECEIPTS.

Subscription by individual members.....	\$579.50
Subscription by component societies.....	5.00
Seventh District Dental Society of N. Y.....	115.00
First District Dental Society of N. Y.....	25.00
Charleston Dental Association.....	3.00
Total.....	<u>\$727.50</u>

EXPENDITURES

Printing, stationery, etc.....	\$116.05
Postage.....	216.20
Stenographic work.....	27.00
Second-hand Typewriter.....	38.50
Balance on hand.....	<u>\$329.75</u>

The Cincinnati Dental Society and the Rochester Dental Society have each voted \$25.00 for the fund, but these amounts have not been received as yet. The chairman says: "We will need about \$700.00 more for this fund, and I am doing my utmost to collect this amount. Any number of societies report that owing to the Red Cross, Y. M. C. A. subscriptions, Liberty Bonds, etc., they cannot see their way clear at this time to contribute towards the Tablet Fund."

These tablets, when placed in the Forsyth and Rochester Dental Dispensaries are to be a permanent, tangible record of the appreciation of the dental profession. Bring the matter up for discussion at your next meeting. Can you not spare twenty-five cents per member for so worthy a cause?

THE DENTAL RESERVE CORPS

The following is an editorial from *The Military Surgeon* and has to do with the dentist in the army.

THE Military Surgeon feels assured that the members of the dental specialty now being called upon for service in the Dental Reserve Corps will freely and willingly meet all the conditions which such service demands. We are informed that the national association has taken the necessary action to obtain a census of the dentists throughout the country, and is already in position to furnish the authorities with the available information and statistics.

On a basis of one dentist per thousand of strength, at least 1,500 will be required almost immediately and not less than an equal number more in reserve for emergency, which will surely soon arise. There are in the United States 40,000 dentists, half of whom are probably available for military service, though there is little likelihood of any such being required by the forces; nor indeed could they be spared by the civil population. No one can question the importance to the community of skilled dental aid, and this is becoming more and more appreciated in the military service. It would seem that the medical profession generally and the dental specialists themselves are now more fully realizing how important the mouth and its appendages are in the economy of the body.

Such being the case the dental specialty, the acquirement of a knowledge of which has each year recently demanded higher attainment, is becoming to be recognized as of far greater importance than formerly, in maintaining the health of the people. Finally the wonderful prosthetic work of its practitioners have accomplished thus far in war injuries and the larger field which is opening to them in this direction will soon place the dental surgeon on a par with other special surgeons, if such is not already the case.

Members of the dental corps of the medical departments of our army and navy are now duly commissioned officers, entitled to all the rights and privileges attached to a commission and the Association of Military Surgeons will at its coming meeting consider an amendment to the constitution to include in eligibility to its membership the officers of the Dental and Dental Reserve Corps.

CANADA's largest department store, The T. Eaton Company, Ltd., Toronto, has established a dental dispensary for the benefit of its employees. The equipment is of the best and complete in every particular. Its purpose is for the relief of pain, prophylaxis, consultation, advice and X-ray diagnoses. No dental operations in the way of restoration of any kind are undertaken.

NOTE AND COMMENT

*"Why were the saints, saints?
Because they were cheerful
When it was difficult to be cheerful,
Patient when it was difficult to be patient;
Because they pushed on when they wanted to stand still,
Kept silent when they wanted to talk,
And were agreeable when they wanted to be disagreeable,
That was all."*

SWEDEN has prohibited the export of tooth powder and paste.

WICHITA, Kansas, is on the map with a free dental dispensary recently established on the third floor of the City Hall.

THE 1917 edition of Polk's Medical Directory lists 190 medical journals in the United States and 12 for Canada.

THE school board of Winnipeg, Canada, has arranged for the purchase of equipment for four dental dispensaries soon to be established for the care of the school children's teeth.

ITHACA, N. Y., has a new free dental dispensary, located in the high school building. Mr. Charles J. Rumsey donated the equipment as a memorial to his son, and it will be known as the John C. Rumsey Memorial Clinic.

THE New York Telephone Company is about to establish a number of dental clinics for the benefit of its employees, the first of which will be located in the Executive Building at Cortland and Dey streets, New York City.

A NEWSPAPER report has it that Dr. H. C. Daken, who invented the "Daken solution," has produced a modification of this product called "Halazone." A tablet containing no more than one-sixteenth of a grain is said to kill every germ in a quart of water. All of which is important, if true.

SIX HUNDRED and eighty locomotives and some 9,000 standard-gauge freight cars are under construction for use on the American railway now being established by our engineers in France. The first of the locomotives, weighing 275,000 lbs. was recently completed in twenty working days.

THE Baldwin Locomotive Works, Philadelphia, Pa., employing 20,000 men, is at the present time turning out seventy-eight complete locomotives a week, and it is expected that this number will be materially increased. In the year 1893, 3,000 men were employed and the output was two locomotives a day.

AN interesting side line in meat scarcity is the shortage of glue now being felt in the furniture and other trades. Glue imports have fallen off seventy-five per cent. since the war started, and the price of this commodity has doubled, with predictions of a price as high as one dollar per pound in the future.

AN American synthetic drug, "Apothesine," now being tested by one hundred American surgeons before its general introduction to the medical profession, is said to be decidedly superior to novocain used in the same strength. It can be boiled for five or ten minutes without deterioration and produces anaesthesia, lasting about an hour. It is said to be non-toxic in amounts up to 150 c.c.

DR. RAYMOND E. BACON, director of the Mellon Institute, University of Pittsburgh, has been commissioned a lieutenant-colonel in the Ordnance Department of the United States army. The directors of the Mellon Institute have expressed their willingness to grant Dr. Bacon leave of absence for the period of the war. This is only another illustration of the talent that is so freely being placed at the disposal of our country in the present crisis.

THE dental surgeon in charge of the British prisoners of war in Switzerland in a letter to the *Spectator* (London), says:

"In my position out here (Murren) I have had ample opportunities to demonstrate the terrible neglect of the mouth and teeth in the case of the average British soldier coming from the British Isles. On the other hand, the Canadian soldiers had—almost without exception—excellent dental treatment before going out to France. The dental profession in Canada was given its rightful position and encouraged to organize, with the excellent results seen here and elsewhere. Why should not the same plan be followed at home?"

THE Ivory Cross is the name of a society with headquarters in London, organized to provide much needed dental treatment to home army men, discharged service men, and the necessitous poor. Fifteen thousand applications have been dealt with since March, 1915, of which number eleven thousand received surgical treatment. Two thousand sets of artificial teeth have been applied and over \$30,000 paid to surgeons. This society is described as "one of the best national efforts started since the war begun."

MEDICAL inspection of the school children of Kansas City, Mo., was suspended by the municipal authorities for lack of funds. A public spirited citizen, desiring to remain incognito, has agreed to pay the expenses of the work for three months. Five physicians, an equal number of dentists, and ten nurses will be employed. Clinics will be held in five of the local schools. Lectures and instructions on the proper care of the teeth will be given by nurses and dentists.

THE School of Oral Surgery, established at the Evans Institute Dental Department, University of Pennsylvania, under auspices of the government, has been formally opened, with an attendance of thirty-two advanced students at present actively engaged as officers of the medical and dental corps of the army. The course will continue during the period of the war. Some of the branches in the laboratory work will be taken care of at the local hospitals and medical colleges. The commissioned officers sent to the school from the United States Dental Corps are: Major E. J. Johnson, Capt. R. E. Balch, Carl Eggers, A. P. Roope, R. C. Wiggon; Lieuts. Ivan R. Burket, Bernard Friedlaender, S. D. Gleton, D. W. Hoffman, R. M. Kleckner, F. Koontz, A. J. McCracken, W. H. Maley, J. W. Means, Samuel Oats, Jr., Howard Schriyer and E. M. Vaughan. Dental Surgeons: Lieuts. Vincent E. D. Bragg, R. S. Catheron, H. O. Cowles, F. H. Cushman, H. T. Hinrich, W. H. Hynard, C. J. Meyer, G. C. Parry, S. D. Rugles, W. J. Scruten, I. E. Smith, J. D. Stone, C. W. Swing, C. E. Waters, J. B. Williams and P. J. Wumkes.

"EXPERIENCE will no doubt establish the fact in the United States army that the presence of twenty teeth, or even thirty-two teeth, is no guarantee of dental efficiency. Men are safer in wet trenches with no teeth than with pulpless or decayed teeth. The great work of the dentist in the army is extracting, filling, stopping pain, repairing failing dental operations and artificial dentures. A few are required for the spectacular restorations after injury. The dentist who helps to win the war is the one who makes the soldiers fit and keeps him so rather than the one who repairs the wastage."—A. E. Webster, "*Pacific Dental Gazette*."

THE American combatants in our midst are receiving, or have received, dental attention such as our men have never received, or are likely to receive, unless someone in authority here awakens with something of a start. Who is the authority who maintains that the dental requirements of our men are not every whit as necessary as those of our American allies? Yet someone in authority must exist who does think so, otherwise we should not have the deliberate flouting of the dental profession by the authorities to which we have become accustomed. For this to a great extent, unfortunately, dentists have only themselves to thank; their aims and rights by proper representation might have been forced to receive the recognition long overdue. Are the dental men even now too lethargic to look after their own interests? Depend upon it, the dentists who are now on active service will have a good deal to say, and to the point, too, upon the cessation of hostilities.—*Dental Surgeon*.

THE names of 300 pleasure cars and automobile trucks are listed in *Everybody's* for December. Nearly all are fitted with the gasoline engine. Electricity and steam are also used, and at least one manufacturer presents a gasoline and electric combination promising new economy and efficiency. Stock cars vary in price from a "Henry" Ford at \$345 to a Pierce-Arrow at \$7,600. Should you desire special fittings the sky is the limit. Cars with from four to twelve cylinders are presented for your choice. Truck and delivery cars vary in carrying capacity; one-half to seven and one-half tons and in price \$600 to \$7,000. Detroit, Michigan, has twenty-four firms producing pleasure cars and ten confine their product to delivery trucks. The development of the automobile is largely responsible for Detroit having doubled in population during the past ten years.

THE following appears in a recent issue of the *American Dentist*: "Lord Cromer tells this story of Ishmail Pasha, Khedive of Egypt. It once happened that Ishmail was suffering from toothache. He sent for a European dentist who told him that he was afraid it would be very painful. He was informed in reply that if he would allow the dentist to administer laughing gas to him he would feel nothing. He still doubted, but told the dentist to bring his apparatus to the palace. The dentist complied and explained the process to the Khedive. Ishmail then summoned an attendant and told him to send up the sentry who was at his door. When the man arrived the Khedive ordered him to sit down in a chair and requested the dentist to take out a tooth on either side of his jaw. Ishmail then asked the man whether he had felt anything, and the man told him that he had not. But Ishmail was not yet satisfied. He said that the sentry was a young, strong man and that he would like to see the experiment tried on some one of weaker physique. Accordingly he summoned a slave girl and had the dentist extract two of her teeth. Finding that she did not show evidence of extreme suffering, he then consented to having his own tooth out."

SPEAKING broadly, the South American continent is a virgin field for American industry and trade, but there are grand exceptions. A returned American traveler cites one of these: "Incidentally, I take off my hat to the man or organization which undertook to exploit the Colgate products through Latin America. No matter where I traveled, whether in large cities or small towns, almost every drug store had ambitiously displayed everything manufactured by Colgate's. If you wanted any French preparation, the salesman had to fish it out from some back shelf, whereas Colgate's preparations hit your eye both outside and inside every store. This was the most effective American advertising and exploitation of its kind I encountered."

It is estimated that an army of 10,000 will be necessary to keep up the roads behind the firing line in France next spring, when the million men representing the United States are actively engaged in warfare. Within the firing zone an army of men employed for the one purpose of maintaining the roadbeds is required. It is said, that 75,000 French soldiers worked constantly day and night to keep the roads leading to Verdun in repair when the Germans made their big drive on that position. Steam rollers, graders, traction engines, motor trucks and trailers, steam shovels, stone crushers, concrete mixers, air compressors, drills, portable machines and blacksmith shops, as well as industrial railroad equipment, have been shipped to France, awaiting the coming of the army of American Engineers, who will have an opportunity to show what skilled Americans can do with modern equipment in the building of roads.

A YOUNG woman who thought she was losing her husband's affection went to a seventh daughter of a seventh daughter for a love-powder. The mystery woman told her:

"Get a raw piece of beef, cut flat, about an inch thick. Slice an onion in two, and rub the meat on both sides with it. Put on pepper and salt, and toast it on each side over a red coal fire. Drop on it three lumps of butter and two sprigs of parsley, and get him to eat it."

"The young wife did so, and her husband loved her ever after."

THE other day we saw a bridge that had seen service for thirty-five years. It had Richmonds on the cuspidors. The bands were platinum and they fitted the roots. The trimmings were porcelain facings. They looked nice. There are not many bridges made today that equal it, and it was made thirty-five years ago. Think of it, thirty-five years ago and better than lots of those made these days. O well, cheer up, that grim reaper, the X-ray, swore the roots were not completely filled.—*The Michigan Dental Journal*.

DUE to war conditions and government demands, which must have precedence over all else, the dental supply houses are experiencing many sad moments through the inability to secure equipment and supplies to fill orders. It is up to the dental profession to exercise patience and, if possible, allow substitution. To illustrate: A certain colored cuspidor bowl is wanted; the manufacturers are blocked with a lot of war and emergency orders; it isn't in stock and no definite promise can be made as to when it will be. But if you can accept another shade which is in stock, the order can be filled without delay. We are beginning to realize that the country is at war and conditions are far from normal. They are likely to grow worse than better and it is up to us to remember this and be thankful for present blessings.

HITHERTO, it has been an axiom that surgical intervention on the battlefield presented so many risks that it was not to be thought of. It could only be permitted quite in the rear, where aseptic technique could be rigidly observed. But, "necessity knows no law" and early operative treatment at evacuation hospitals directly back of the firing line, anticipating threatening infection, has solved the problem of wound infections. It is the best thing surgically that has thus far come out of the war.

MANY thousand medical practitioners have responded to America's call and are now in active service in the army and navy. It is estimated that 24,000 medical men will be needed. The younger men have not responded so generously as those of a more mature age, and the quota is as yet unfilled. Twenty-four thousand physicians means that one-sixth of the medical profession are needed and, if subject to a general draft, every medical man in the country under 31 years of age would be needed to meet the contingency.

HAVE you one of those cute, little, wooden bird cages, sometimes called sterilizer, in your office? It depends on the fumes of formaldehyde for its sterilizing (?) properties. Experimental tests have demonstrated its greatest asset in the magic word, "sterilizer" right over the front door. A recent writer says this is a misnomer, and that "incubator" would be better, "the only drawback to its use as an incubator being that it makes a bad smell and smarts the eyes." Super-heated steam in two second applications is of like nature. However, when employed in two minute periods it works satisfactorily. Boiling water, with a pinch of soda added to prevent rust of steel instruments, is the one safe bet.

A RECENT writer, while recognizing the value of salversan in the treatment of Syphilis, says: "There has been more 'bunk' regarding salversan and Wassermann than any other scientific discovery in medicine. The layman and many ignorant physicians believe that there is such a thing as Ehrlich stated, a complete sterilization of the body by one or two or three doses of salversan. If you know biology, you know that the cells of the human body are less resistant to chemicals than are the microbes that infect them. Some people entertain the notion regarding disease that all we have to do is, so to speak, to discover a three-cornered disease and a three-cornered germ that causes it, and then fashion a three-cornered club with which to kill it. Not long ago one of our distinguished syphilographers read a paper on two hundred cases of Syphilis successfully (sic) treated with salversan. I discussed the paper and this was my discussion: 'If you were to use a remedy for Syphilis and had your choice 'between salversan and mercury, which would you use?' He replied 'mercury,' without any challenge from the large audience which, in my opinion, demonstrates the exact status of the treatment of Syphilis."

A DREAM of the scientists has become a reality. Stimulated by the war and lack of coal, Italy is successfully utilizing super-heated steam obtained from hot springs and transmitting the power a hundred miles distant for the manufacture of munitions and lighting purposes. It is estimated that hundreds of thousands of horse-power can be produced from a comparatively small area in Italy, not to be compared in extent to the Yellowstone Park, New Zealand, or, indeed many other hot spring areas known to exist in America, Asia, and Africa. The vista of possibilities opened up by this latest great scientific problem solved by the Italians fairly staggers the imagination.

AKRON, Ohio, while it has two industrial dental dispensaries, has no provision in its public schools to care for the teeth of poor children.

We quote: "There is a crying need for a free dental dispensary in this town, especially in the schools is such an organization needed. The nurses have one hundred cases of decayed teeth so far in the different schools. Bad teeth are one of the worst carriers of disease. Germs are carried to the digestive organs with the food and the whole body made susceptible."

The local dental society stands ready to help organize a dental dispensary if funds are appropriated for that purpose.

THE Napoleonic wars which raged over Europe from 1793 to 1815 cost approximately \$7,000,000,000, or the same amount that Congress provided for the United States to enter into the present conflict, and that was only a beginning. The Mexican War cost the United States about \$100,000,000, a comparatively trifling sum. The Civil War, however, was a very expensive affair, entailing the expenditure of \$8,000,000,000 from 1861 to 1865. The Franco-Prussian War cost the two nations engaged about \$3,500,000,000. The second South African War from 1900 to 1902 cost \$1,500,000,000. The conflict between Russia and Japan consumed almost \$4,000,000,000. The United States got off very cheaply in the Spanish-American War with an expenditure of \$175,000,000. The estimates on the outlay for the present war up to November of this year were \$100,000,000,000.

In one year a large American industrial plant, employing 8,624 men, adopted accident and prevention measures and found that it saved a total of 4,961 days' time. Assuming that the average wage of the men was two dollars per day, this represented a saving of \$9,922 for the working forces of the plant. Efforts to guard workers from disabling accidents have accomplished some remarkable reductions in the loss entailed to both workers and employers. The United States Steel Corporation reports a gross saving in casualty expense for serious injuries of \$4,775,692 during three years. The expenditures for safety which produced this saving amounted to \$2,003,712, leaving a net saving of \$2,771,980. This, wholly aside from the fact that it had preserved thousands of able hands, gained a larger output and prevented poverty and distress.

THE *Literary Digest* for May 19th says:

"The largest sacrifices of personal income in the name of patriotism that this country has ever seen will be made by the doctors who respond to the government's call to service in France. They are the American hospital units of the Army Medical Reserve Corps, and included in these, some of which are already called, are leading surgeons and physicians of the United States. The highest professional income in the corps is reported to be \$140,000, says a writer in the Sunday Magazine of the *New York Times*, and this has been heretofore earned annually by a New York surgeon. In the seven hospital units of New York it is estimated that there are more than sixteen men with annual incomes exceeding \$50,000. The number with incomes above \$25,000 is much larger. Their work of restoring the disabled and returning them to the ranks will be of more military value than if they were themselves fighting in the trenches. It must be held in mind that in answering the call to service these men are laying down their incomes as well as themselves."

ALCOHOL at \$10.00 a gallon, and hard to find even at this price, is one of the developments of the war. The same product with a small quantity of kerosene or benzine added is sold as "denatured" at \$1.25 per gallon. The government formerly collected \$1.10 per gallon for medicinal use. This has been doubled and another dollar war tax added for its use as a beverage. With the discontinuance of the manufacture of whiskey during the war, the distilling interests may well be engaged in the manufacture of alcohol. Immense quantities are used in the making of munitions and the arts. When this war demand will have passed, the country will be well equipped with distilleries fitted for the manufacture of alcohol, and it will undoubtedly be sold at a lower price than ever before. Cheap alcohol to take the place of gasoline means the solving of the problem of the internal combustion engine for all time.

THE dentists of Pittsburgh, Pa., are busily engaged in raising funds for a dental ambulance. The following letter was sent out and speaks for itself. It is a good example of forceful English:

Each time sickness takes four men from the trenches one of them is obliged to go because of a war disease—trench mouth—an acute form of pyorrhea alveolaris—a toothache magnified a thousand times.

One in four—one in four—one in four! The days roll up a discouraging total—the months a host.

And every man who leaves our trenches, weakening by one the Allied line, strengthens by one the forces of the Hun.

You can help keep these boys where they want to stay—on the firing line.

Yours can be the hand that relieves pain—that makes life a bit pleasanter for the men who are fighting for you.

This is the way you can help:

In several cities funds raised by subscriptions are being used to purchase, equip and man dental ambulances.

Here in Pittsburgh the work has been undertaken by the Academy of Dentistry.

This is a society with a membership of thirty-eight. Each member it at present giving one hour each day to enlisted men who require dental services and are unable to pay for them.

Doctors S. C. Barclay, Alex. Bard and T. Willard Flint compose the Ambulance Committee.

The Pittsburgh Ambulance will cost in the neighborhood of \$4,000.00.

Make your check payable to Dr. R. R. Hutchison, mailing it in the enclosed stamped envelope.

Within the Ambulance a tablet will be set. This tablet will carry the names and addresses of contributors to the ambulance fund.

A donor's card is enclosed. Fill it out carefully, writing or printing both name and address in order that both may appear correctly.

Will it not be good to know that the Pittsburgh Ambulance—your ambulance—is following close behind the lines performing a work of mercy? That you are helping?



Heard it afore

FUNNIES

We want good, clean humor for this page and are willing to pay for it. Send me the story that appeals to you as "funny," and if I can use it you will receive a check on publication—address EDITOR, 186 Alexander Street, Rochester, N. Y.



That's a goodun

A CIRCUS train was wrecked in the South and the Old Man offered the negroes a dollar each for bringing the animals back. One huge darky demanded two dollars for the return of a giraffe.

The Old Man hadn't any giraffe and asked the darky if he was sure he knew what he was talking about.

He was. "Yassah, Ah is, an' its a mighty savage giraffe too. Done bite me twice on de laig. Ah ain't gona bring him in fo' no dollah. Ah wants two."

The Old Man gave him a dollar down, promising another on delivery of the goods.

The next morning he came in looking as tho' some one had been cleaning fish on him—lacerated, bloody and lame. In one hand he carried a club about the size of his arm, in the other, and trailing over his shoulder was one end of a rope. At the other end of the rope, battered, half-hairless, limp and utterly dejected dragged a ten-foot man-eating Royal Bengal tiger.—S. C. K., *New York City.*

A DRAFTED man put in a claim for exemption on account of being the head of a family dependent on him for support. He was ordered to bring a letter from his wife showing the facts. Here is what she wrote.

"*Dear United States Army—*My husband ast me to rite you a reckmend that he supports his fambly. He can't reed, so don't tell him, just take him, he aint no good to me, He aint done nothin but drink lemмен essence and play a fiddle since I married him eight years ago, and I gotta feed seven kids of hisn, Maybe you

can git him to carry a gun, hes good on squirrels and eatin, Take him and welcome. I need his grub and bed for the kids. Don't tell him this, but take him."—E. H. R., *Marion, Ohio.*

"You keep on pesterin' me," threatened one negro to another, "an' I'se gwine come over dere whar you is an' jes' nachelly cave yore haid in."

The second negro reached toward his hip pocket. "You an' who else?" he enquired softly.

"DIDN'T I tell ye to feed that cat a pound of meat every day until ye had her fat?" demanded an Irish shopkeeper, nodding toward a sickly, emaciated cat that was slinking through the store.

"Ye did that," replied his assistant, "an' I've just been after feedin' her a pound of meat this very minute."

"Faith, an' I don't believe ye. Bring me the scales."

The poor cat was lifted into the scales. They balanced at exactly one pound.

"There!" exclaimed the assistant triumphantly. "Didn't I tell ye she'd had her pound of meat?"

"That's right," admitted the boss, scratching his head. "That's yer pound of meat all right. But"—suddenly looking up—"where the divil is the cat?"—J. W. T., *Phila., Pa.*

PAT—"Sure, what the 'divil's a chafing dish?"

Bridget—"It's a fryin' pan, what's got into sassiety."

LISTERINE

is a powerful, safe and fragrant antiseptic, markedly efficient and suitable to many requirements in dental practice.

LISTERINE

is strictly non-poisonous and may therefore be freely employed as an antiseptic mouthwash by the patient whenever oral sepsis is to be combatted.

LISTERINE

is unirritating and slightly stimulating in its effect upon the salivary glands, thus favorably influencing the maintenance of the normal salivary mouth-bath which Nature provides for the care and preservation of the teeth and mouth tissues.

LISTERINE

in a 25% solution used as a spray prior to and following surgical operations upon the teeth or mouth, is beneficial in effect and very agreeable to the patient. Such a solution kept on the dental cabinet in an atomizer ready for immediate use, will highly recommend itself to practitioner and patient alike.

On request, we furnish, free of cost, 200 copies of "The Dentist's Patient" or "The Teeth and Their Care," imprinted with professional card.

Lambert Pharmacal Company

St Louis, Mo., U. S. A.

Dr. Lyon's In The Field

DENTAL OFFICE—CAVALRY—TEXAS

October 3rd, 1917

From 1st Lieut.---, Dental Corps, U.S.A.
To I. W. Lyon & Sons, Inc. 520 W. 27th St., N.Y.
Subject Tooth Powder

1. Acknowledge receipt this date of one pound can of Dr. Lyon's tooth powder for which I thank you. I acquired the Lyon Tooth Powder habit early in my professional career, but I did not realize its true worth until after I came into the Army. Soldiers are sometimes a little careless about such matters as oral cleanliness, and I always find that Lyon's Tooth Powder mixed with an indicated amount of flour of pumice is of great benefit in correcting conditions of this kind. Again thanking you, I am,

Respectfully,

(Name on request)

Pyorrhea Cured in Four Days

A prominent Ohio dentist reports case of virulent type of pyorrhea cured in four days. A full report of this remarkable case, technic of treatment, bacteriologic report, over the doctor's signature, sent on request.

Dr. Frink's Kloramide Dakin's New Synthetic Antiseptic

Fifty-four Times as Efficient as Carbolic Acid

Nontoxic, Noncaustic, Nonirritating and neither precipitates nor coagulates proteins.

Oral diseases that have resisted varied treatments for years yield when Dakin's Solution is applied. See article (Chronic Abscess with Necroses Cured by Dakin's Solution) by Dr. P. L. Marshall, Columbus, Ohio, in December Dental Summary.

WARRING NATIONS

Are using Dakin's Solution in unheard-of quantities. The consequent increase in price of constituent parts of Dr. Frink's Kloramide prevents giving of samples or bargain prices.

Our products are made in the original laboratories where the first tablets for Dakin's Solution were made and by the same expert chemists, and have made a medical reputation in Dental Therapeutics. No substitutes will ever be used and the present quality will be maintained regardless of cost. We may be compelled to raise present prices. Our present stock is large but so are our sales. Will fill all orders from this ad (mention Oral Hygiene) at prices named below.

CAUTION—In ordering use the full name "Dr. Frink's Kloramide" and avoid substitutes.

Our guarantee backed by twenty-five years of honest service to the dental profession is money back on request, for any reason or for no reason.

Dr. Frink's Kloramide bottles of 100 5 Gr. to make 100 ounces	
Dakin's Solution	\$1.25
Dr. Frink's Kloramide bottles of 500 5 Gr.	5.00
Dr. Frink's Kloramide Cream (Special Unguent), 1% Dakin's	.50
Dr. Frink's Patient's package for home treatment	1.00
Dr. Talbot's Rubber Massage Brush (Hollow Tubes)	.35

Order of your dealer or direct. Send for literature.

JOY L. FRINK, D.D.S.

Cor. Agatite and Long Aves.

Chicago, U. S. A.



Dr. Talbot's Rubber Massage Brush
(Hollow Tubes)

Always say "ORAL HYGIENE" when you write advertisers.

Use Pepsodent At The Chair

We suggest that you try PEPSODENT in your prophylaxis work at the chair, with porte polisher or brush wheel. Try it in your own mouth too. You will be impressed with its rapid cleaning and polishing properties and the absence of harmful abrasive action caused by other abrasive agents usually employed. You will also find that, after you have put a patient's mouth in condition, PEPSODENT will keep it "wonderfully clean."

PEPSODENT, as you have observed from the formula, published in last month's issue, marks a revolution in the field of dentifrices, and is now being used and prescribed by leading prophylaxis and pyorrhea specialists in this country. They use it at the chair, either alone or, when greater abrasive action is desired, combined with pumice or silex. They also prescribe it to patients for home use.

Let us tell you the facts about PEPSODENT. Fill in the coupon and mail today.

THE PEPSODENT COMPANY

2802 Ludington Building
Chicago, Ill.

Please mail dentist samples and literature to

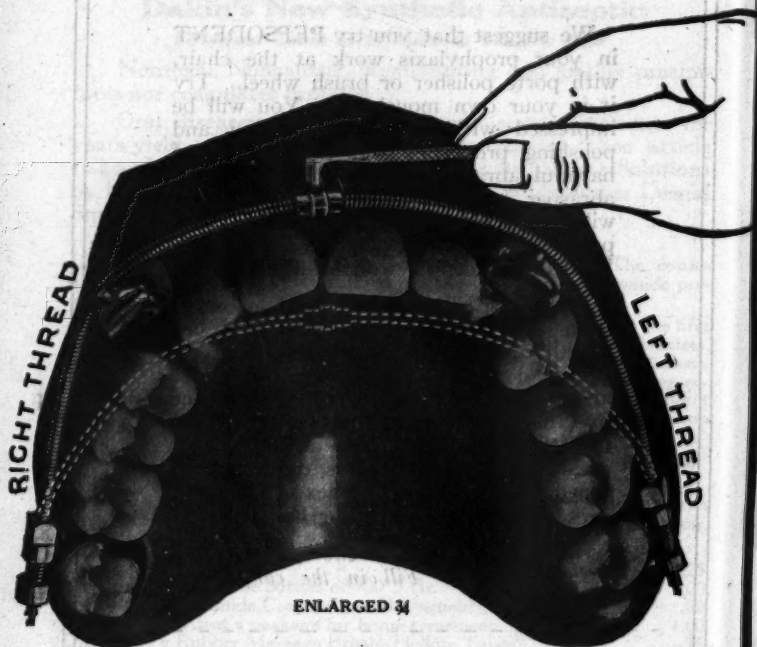
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Address _____

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A non-oxidizable spiral spring, screwing through a hollow threaded bolt on the molar bands, left thread on one side, right thread on the other. The nut in median line quickly turns both sides of the arch at the same time.

Simplicity itself, easily adjusted, works like a charm—the arch does it, you put it on. No pain to the patient, no worry to the operator.

Orthodontia made easy to every dentist.

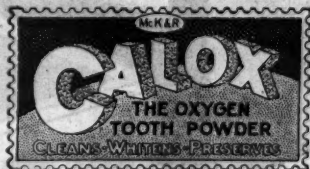
THE DENTAL SPECIALTY CO.
1638 California Street DENVER, COLO.

Always say "ORAL HYGIENE" when you write advertisers.

ORAL HYGIENE

is effectively maintained by a visit to the dentist at regular intervals, and the consistent use of

McK&R



This is the propaganda we are disseminating among millions of readers of national publications.

The use of CALOX Tooth Powder by the dentist, makes duty a pleasure. CALOX Tooth Powder helps the dentist to help his patient. The Oxygen in CALOX is the agent that renders this meritorious service.

Samples

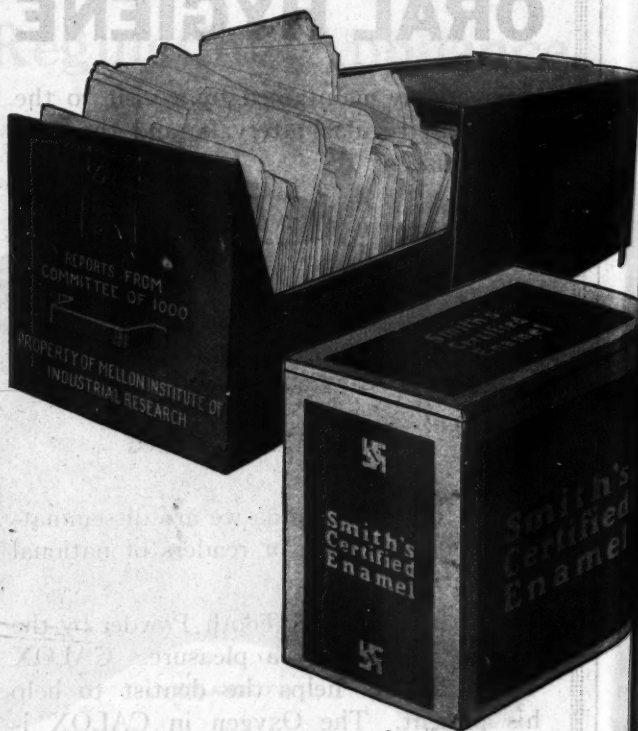
Literature

McKESSON & ROBBINS
INCORPORATED

Established 1833

NEW YORK

Always say "ORAL HYGIENE" when you write advertisers.



Always say "ORAL HYGIENE" when you write advertisers.

A record of delighted patients

Back of every box of Smith's Certified Enamel stands this record of more than a year's use, in the mouths of patients, by members of the "Committee of 1000."

This data is now in the possession of the Mellon Institute of the University of Pittsburgh, where the product was developed following two years of research conducted under our fellowship in that institution.

These records are available for examination by any member of the profession at any time, the privilege having already been accepted by a Board of Review composed of three well-known members of the profession. Their signed report is printed in "The General Manager's Story."

But more convincing than their statement, more convincing than the clinical records of the "Committee of 1000," more emphatic than any of the elaborate tests for physical properties—is the performance of Certified Enamel itself.

You discover its adhesiveness when you make your first mix.

You recognize its lifelike translucency and strength when you examine the fillings you have inserted.

And the fact that Certified Enamel has "established a new standard" in aesthetic restoration is evident not only to members of the profession—the record compiled by the members of the "Committee of 1000" is a record of delighted patients.

**LEE S. SMITH & SON
MANUFACTURING CO.
PITTSBURGH, U.S.A.**

At dealers' everywhere

Asked to invent
a perfect "vulcanite tooth"

Would YOU not aim for:

INTERCHANGEABILITY—

Without re-vulcanization

NATURALNESS—

Lingually as well as labially

STRENGTH

SIMPLE TECHNIC and

MODERATE PRICE?

In other words:

BAKER
Interchangeable
Vulcanite Teeth

The principle of attachment of these teeth has been thoroughly tested in thousands of practical cases. You should acquaint yourself with these teeth by ordering a specimen set now (price \$2.00, money back if not satisfied) and by making a model denture. Complete moulds and shades will be ready by May, 1918. Descriptive booklet upon request.

BAKER & CO., INC.
Newark - New Jersey

Do you do your own gold work? If so, let us tell you about BAKER Dental Golds. A commodity which represents one-third of your merchandise account requires close scrutiny and careful buying.

**PIORKOWSKI
USED A 10%
SOLUTION OF**

Cato Tooth Paste

When He Said

"Cato arrested germ multiplication, including typhoid, staphylococcus and diphtheria bacillus."

This was a series of laboratory tests by this noted bacteriologist. The result was cold, demonstrated facts, no surmise, guess or theory.

***If Cato is efficient at 10%
what will it do as the
patient uses it at 100%***

This positive inhibiting power is what prevents the reinfection of properly treated pyorrhea lesions. This is what makes one sense that "Clean Mouth" so frequently mentioned by users of CATO.

Instruct your pyorrhea patients to brush their teeth vigorously with Cato, using plenty of water to sluice away the food particles. Then with a little Cato on the finger, massage the gums. Let the CATO stay to inhibit bacterial growth.

CATO is a Dentist's preparation. It is 50c a tube because it is skillfully prepared and free of sweets—glucose—and other natural cultures.



6-inch Tube

Anti-Pyorrhea Chemical Co.

St. Louis U.S.A.

Making care of the gums an every-day habit



THE value of special treatments for toning the gums and stimulating circulation—to be applied by the patient between sittings—of course cannot be questioned.

But it is difficult to induce patients to adhere faithfully to instructions. Senreco overcomes this difficulty. For Senreco is just as easy to use as any ordinary dentifrice. Patients readily acquire the Senreco habit.

But Senreco is not just an ordinary dentifrice. Its formula—devised by a dentist—is ipecac, limewater and potash.

In addition to its function as a cleanser, Senreco tones and stimulates the gums. And it makes care of the gums an every-day habit with the patient.

*Send your professional card or a postal
or your name and address on the mar-
gin of this for the complimentary tube.*



SENRECO, Masonic Temple Cincinnati



The Vulcanizer Speaks—

"THIS IS MESSAGE
No. 1 TO DENTISTS:

I am, as you know, an important factor in your laboratory work. Upon me, to a large extent, depends the quality of your vulcanite plates. But far more important is the use of the proper base rubber. If every dentist knew the gratifying results assured through the use of

"GOLDDUST" RUBBER

(Trade Mark Reg'd U. S. Pat. Off.)

there would never be any other kind in his laboratory. "Golddust" Rubber vulcanizes uniformly because the admixture of finely pulverized aluminum with pure Para rubber increases its heat conductivity and eliminates tendency to porosity; permits the making of thin, comfortable plates, and after vulcanization, the material takes a beautiful lustre by the usual polishing process.

Send in the coupon for
convincing proof.

Atlantic Rubber Corp'n, Sales Agts.

PRICES:
\$5.25 per pound
\$2.63 per half pound
1/6th lb. sample box
(about 5 sheets) \$1.00

TRAUN RUBBER COMPANY

239-243 FOURTH AVENUE

Dept. O. H.-1

NEW YORK

O.H.-1
Enclosed \$1
for sample box
of "Golddust."

Dr.

"HALVERSONIZED

MEANS STERILIZED"



No. L-11-A Dental

—This slogan was selected as the best one submitted in our recent contest.

The prize—an L-11-A Halverson—goes to

W. H. SANBORN, D.D.S.
BOOTHBAY HARBOR
MAINE

whose letter containing this winning slogan was the first with this particular phrase to reach us.

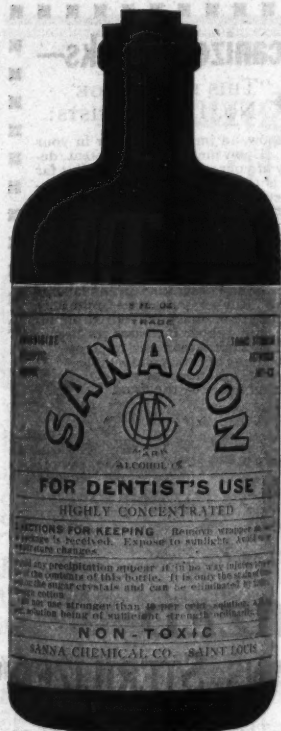
We were sorry we could not give a sterilizer to each of the hundreds of satisfied users who wrote, and we thank them all for their many kind expressions about the Halverson.

THE HALVERSON COMPANY

180 N. Dearborn Street
CHICAGO

1114-15 N. W. Bank Building
PORTLAND, ORE.

Always say "ORAL HYGIENE" when you write advertisers.



One anaesthetic—and also
may be poured instead of jet

One anaesthetic—and also
heals as well as anaesthetizes

This is Sanadon.

You seat the patient in the chair. You *pour* Sanadon into
the affected field. Anaesthesia is produced. It is new
of anaesthesia—different from any either you or your patient
will have ever experienced.

For instead of disturbing the natural healing process

Sanadon is sold by dealers
at 50c and \$1 per bottle.

Always say "ORAL HYGIENE" when you write advertisers.

SANADON

14



alone

and alone—
stead injected.

and alone—
anaeizes.

ur Son upon
. It new sort
rou of patient

earling processes,

Sanadon works *with* them.

Instead of aggravating inflammation, Sanadon soothes, allaying inflammation. It is devoid of after-effect.

Its use is indicated in all dental surgery: in relieving aching teeth—in aborting abscesses and ulcers—and in acute pyorrhea.

You can render a new sort of service with Sanadon.

SAN CHEMICAL COMPANY

14 GRANITE BUILDING
ST. LOUIS, MO.

Always say "ORAL HYGIENE" when you write advertisers.



Responsibility

Alvatunder is an old and honored name. For more than twenty years it has stood for the safe and effective local anaesthetic.

Alvatunder is the first of a group of products identified by the common prefix ALVA.

The group includes ALVA Temporary Stopping, ALVA Gangrenol, ALVA Devitalizing Fibre, and ALVA Painless Devitalizer. ALVA Paraform Pulp Mumifying Paste.

Each shares in the responsibility imposed by the name ALVA.

For "ALVA" implies that each ALVA product is as good as Alvatunder.

Alvatunder and other ALVA products are for sale by good dealers everywhere. They are made by the HISEY DENTAL MANUFACTURING COMPANY of St. Louis.

Always say "ORAL HYGIENE" when you write advertisers.

Dakin's Antiseptic in Dental Surgery

CHLORAZENE, Dakin's Synthetical Antiseptic,
is giving splendid results in Dental Surgery.

This statement is confirmed by the Dental Profession.

Chlorazene is an ideal antiseptic for dentists in rendering aseptic all pus conditions found in the mouth. It is the most powerful antiseptic of its kind that has ever been presented to the medical or dental professions. It has been accepted by the Council of Pharmacy and Chemistry of the American Medical Association. Chlorazene is being used with splendid results in pyorrhea, in extractive and operative work and also as a mouth spray and mouth wash for patients. Chlorazene does not coagulate the albumens in the tissues.

Prefers Chlorazene

"We have been using Chlorazene since May, 1917, in all cases of oral surgery, lacerations, extractions, abscesses and amputations and find it to be a most efficient preparation. We very much prefer it to any other antiseptic used heretofore."

P. P. Dorr, D. D. S.

Ft. Dodge, Iowa.

For Pyorrhea

"I have used Chlorazene with success for pyorrhea, after extraction, and for abscesses."

D. Murray, D. D. S.

Hastings, Mich.

Very Satisfactory

"We have found Dakin's new synthetic antiseptic, Chlorazene, all that is claimed for it. In a brief time we have found it very satisfactory."

Frank L. Shattuck, D. D. S.

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Nothing Compares With It

"I have used Chlorazene in pyorrhea, after extractions and in several cases of minor dental surgery and I know of no other antiseptic that compares with it."

E. A. Litchfield, D. D. S.

Humboldt, Nebr.

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CHLORAZENE is supplied in 4.6-grain tablets, in bottles of 100, at 65 cents. In powder two special packages for general and hospital use: Hospital Package No. 1, to make 4 gallons of a 0.25-per cent solution, 60 cents; Hospital Package No. 2, to make 20 gallons of a 0.25-per cent solution, \$2.25.

Prices on larger quantities on request.

CHLORAZENE SURGICAL CREAM, 4-ounce jar, 65 cents.
CHLORAZENE SURGICAL POWDER, 1-ounce can, 35 cents.

In Canada, Customs Tariff must be added to prices quoted.

LITERATURE ON REQUEST

The Abbott Laboratories

Dept. 97

CHICAGO NEW YORK

Seattle

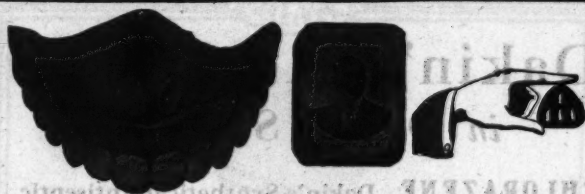
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Los Angeles

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"Get acquainted with the Petry System"

Petry System contains 24 different sizes—OLD and NEW Style
Old Style Retainers only furnished on request

The cups of Petry Retainers are united with the base by the process of vulcanization, and manufactured of the best rubber obtainable.

Any defective or deteriorated Retainer will be exchanged FREE of charge.

The base of Petry Retainer contains a screen which is patented, therefore your guarantee against imitation.

The screen in base is the backbone of the invention, prevents loosening of the retainer from plate after it is cemented to plate.

The retainer is cemented under the flange, created by two pieces of metal furnished with the outfit.

Complete Outfit, \$1.00; Rubbers only, 50c.
Sold by all leading dental houses and attached to plate by all leading dental laboratories.

Give the name of your dealer and laboratory.

Ten cents will bring you a booklet termed "Atmospheric Pressure," the best investment you ever made.

Mention "Oral Hygiene."

Manufactured only by

THE JACOB PETRY RETAINER CO.

North Side Station
Pittsburgh

Thank you,
Doctor, for
recommending

The Rolling TOOTH BRUSH

You have conferred a favor upon your patients and proved that you realize that there is one perfect tooth brush.

Packed in grey and white embossed cartons—the name **ROLLING** on every package.

**THE ROLLING
TOOTH BRUSH CO.**

9 St. Ann Street
Jamaica Plain, Mass.

The Last Word in Attachments BUTTON THEM IN with the BISCHOF-OTTRICH Attachment



Make your plates so they stick like bridge work, and bridge work that is removable and sanitary.

The Bischof-Otrich Attachment may be used in any case (upper or lower) where there are two dependable teeth or roots in position. There are two methods of application (the low cut root, or crown saddle) attachment. Made of highly platinumized metal.

Literature on request.
Price List
C. O. D.
Low Cut \$4.50
Crown Saddle \$5.50

If dealers can not supply you order direct from us



BISCHOF-OTTRICH DENTAL CLASP CO.
11 South Church Street, BELLEVILLE, ILL.

WILLIAMS



**Can Be
Used in
Large
Pieces**

WILLIAMS MAT GOLD

This is one of the reasons for the time-saving "working qualities" and ultimate economy of Williams Mat Gold. Whether used in large or small pieces, it packs perfectly and spreads out well in the cavity, producing a filling of maximum density in a minimum of time.

Williams Mat Gold is 1000 Fine.

For sale by reliable dealers

1/16 oz. - -	\$2.50	1/10 oz. - -	\$4.00
1 oz. - -	\$35.00		

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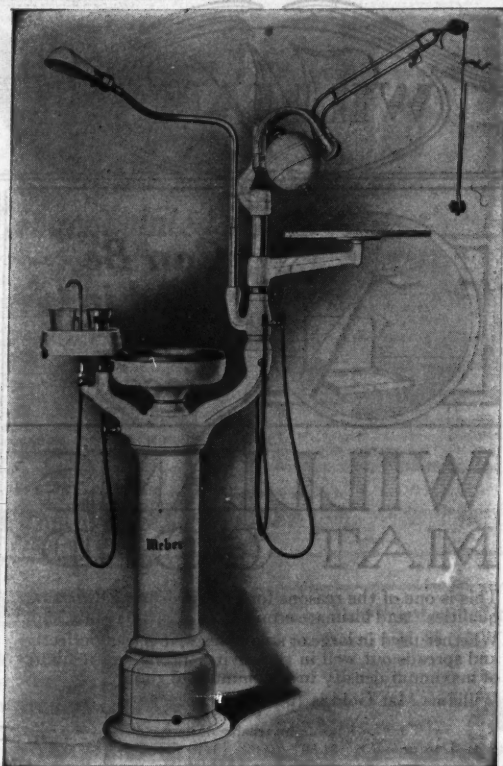
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SMELTERS AND REFINERS

2978 MAIN STREET

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THE WEBER UNIVERSAL UNIT

Unequaled Mechanical Construction. Complete,
Practical and Beautiful.

Equipped to attach any Dental Engine.

Price without Engine, from \$125.00 up.

Write for descriptive Catalogue.

THE WEBER DENTAL MANUFACTURING CO.
CANTON, OHIO

The World's Largest Manufacturers of Fountain Cuspidors

Always say "ORAL HYGIENE" when you write advertisers.

Five years of healthier mouths



Always say "ORAL HYGIENE" when you write advertisers.

Five years of healthier mouths

Five years ago this month, fifty doubting gentlemen started to use a new material—by request.

They were hesitant and cautious.

That was in 1913. Before the end of that year their doubts had been swept away by their enthusiasm.

"It is wonderfully sticky," they said.

"And just as your chemist insisted—we find that it **WILL NOT DISCOLOR IN THE MOUTH.**"

"Frankly, we did n't believe that a cement containing copper could possibly be free from discoloration. But this one is free from discoloration. And it more than measures up to every other requirement."

*Smith's Copper Cement is made in 8 Light Shades
in the laboratories of
Lee S. Smith & Son Manufacturing Company
Pittsburgh, U.S.A.*

The product was SMITH'S COPPER CEMENT.

The fifty gentlemen were fifty prominent members of the profession.

It was the germ of the "Committee of 1000" idea—the "Committee of 1000" on a small scale.

In February, 1914, Smith's Copper Cement was offered to the profession at large.

Until five years ago it was impossible to give germicidal protection to anything other than fillings in deciduous teeth.

With the advent of Smith's Copper, this restriction was removed.

And as a result there are thousands of healthier mouths in America today.

January, 1918, marks a half-decade of setting inlays, crowns and bridges and placing general fillings with the only aseptic cement—germicidal, therapeutic, sedative—which in spite of the copper in it, **WILL NOT DISCOLOR IN THE MOUTH.**

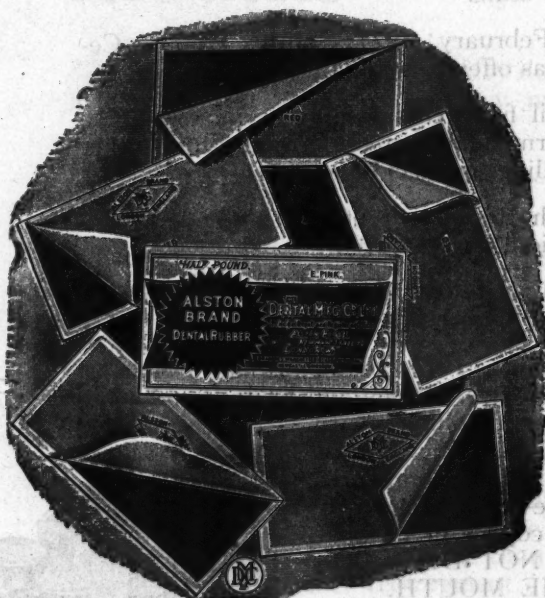




ALSTON DENTAL RUBBERS

- ☞ For taking a High Polish
- ☞ For the excellence of their Colors
- ☞ For Purity, Strength, Toughness and Elasticity

ARE UNEQUALLED



SAMPLES FREE

FULL WEIGHT, EXCLUSIVE OF LINEN, GUARANTEED

Manufactured by

THE DENTAL MANUFACTURING CO., LTD.

Room 919 Candler Building 220 West 42nd Street, New York City

SOLD BY ALL DENTAL DEPOTS

Always say "ORAL HYGIENE" when you write advertisers.

ASH'S REPAIR FACINGS

Made in the principal patterns
and sizes of our Flat Pin Teeth

OVER 900 MOULDS

The three sizes of our Mineral Facings, here illustrated, are sufficient to show the distinctive feature to which we wish to draw attention, viz., the oval cavity in the back of each.

They can be used for repairing nearly every kind of denture; they are easily applied, exceedingly durable, and can be quickly fitted—it does not take longer than from ten to fifteen minutes to fit one.

They are invaluable for repairs to Bridges, and in all cases of Plate and Crown Work in which a flat tooth has to be replaced.

The oval cavity at the back of each facing corresponds with the position of the pins in our Flat Pin Teeth. The facings do not require backing, but can be applied to the backings of fractured or broken teeth when the broken portions of mineral have been removed from the backings.



83



71



14

DIRECTIONS FOR USE:

Chip away the remains of the broken tooth from around the pins in the backing and roughen the backing with a suitable instrument or tool.

Make a thin mix of Ash's Inlay and Crown Cement, or other suitable Oxy-phosphate Cement, paint both the tooth backing and the new facing with a thin layer of it, press the facing firmly on the backing and keep it under pressure until the cement has thoroughly set.

Above three illustrations show only the Method of Manufacture. The Facings are made in *large Variety of Mould* and shade to cover nearly every requirement, whether in Centrals, Laterals, Cuspids, Bicuspid or Molars—Not made in narrow *lower* incisors.

PRICE, each - - - - - 25 cents
" per 100 - - - - - \$20.00

CLAUDIUS ASH, SONS & CO., Ltd.
1-3 UNION SQUARE NEW YORK, N. Y.

Or through your Dental Depot

Always say "ORAL HYGIENE" when you write advertisers.

"Nielsin"

Patented

(Formerly called Byrtis)

SELF SEPARATING IMPRESSION PLASTER

Sham & Rock

TRADE MARK

fixed and removable. As reasonable in cost as first class model plaster. Easy to handle; beautiful in appearance, just what you have been looking for at a price you can afford to pay. 7 lbs. \$1.25. Special price by the barrel.

FIREJACKET

TRADE MARK

they know. Its price and results make home-made investments not worth risking. 7 lbs. \$1.75. If you are a large user get the barrel price.

FIREVEST

TRADE MARK

by the barrel. In cartons 7 lbs. \$1.00. Barrel rate will surprise you.

"DIRECT" F.O.B. Brooklyn. Cash with order. 400 lb. bbl. Pumice, \$8.00. 100 lb. Pumice, \$4.00. Impression Plaster Quick Setting, 320 lb. bbl., \$6.50. 1/2 bbl., \$4.50. 60 lb. case, \$3.60. Model Plaster, 300 lb. bbl., \$4.50. Yours or scientific co-operation.

BYRTIS LABORATORIES, Bush Terminal, Brooklyn, N. Y.

"That Magic Plaster," as the Dean of one of the foremost Dental Colleges called it, separates itself from the model when placed in boiling water. Saves time and labor cutting away impressions. Eliminates broken teeth, damaged models and retaking impressions. Tastes pleasant, doesn't heat, gag, pull, drag or change shape. It's the plaster you need! Try it!

White artificial stone. Makes models of records hardness, like marble in appearance. The most desirable material for Dental casts. Solves the vulcanite plate question. Won't expand nor contract. Very useful in bridge work, both

"A High Heat" investment, doesn't check tests up to 3600 degrees without showing the slightest expansion or contraction. Turns out work that has that "custom" because it is expertly correct. Used by the best laboratories;

"High Heat" investment, doesn't check under any degree of heat for use with any casting machine. Casts better work than investments you have been asked to pay double the amount for. Ask use if you wish what large laboratories are using it.

You use

Gilbert's Temporary Stopping

because it is the best for all purposes for which a temporary filling is required, whether it be for holding treatments or a trial filling in treated teeth.

It lasts sufficiently long, but not long enough for a permanent filling.

Price per package, white, pink or asstd. pink and white \$.50

All goods guaranteed; if not satisfactory, money will be refunded. Any dealer can supply you or we will mail them on receipt of price.

Saving the Pulp means salvation of the tooth

Pulpcap
Gilbert's

will save any pulp

and keep it in a healthy condition if it is at all saveable, making it easier for both patient and operator than to destroy it and treat the tooth.

Price per package \$ 1.00

S. Edgar Gilbert

1628 COLUMBIA AVENUE

PHILADELPHIA, PA.

No. 97 CABINET



☐ The size of the cabinet appeals to anyone with a narrow office. It is but 12" deep, 35" wide by 57½" high.

☐ Then, the medicine top is convenient, as 16 labeled bottles are furnished with the cabinet and it is just deep enough for one bottle, so none are in the way of any other.

☐ It is veneered with a high grade vertical veneer, which has a figure not possible to obtain in solid stock.

☐ Its marble base adds to its beauty and its interior arrangement is exactly the same as our well known No. 60, which is in more dental offices than any cabinet ever marketed.

Our catalog will be mailed upon request.

THE AMERICAN CABINET CO.
TWO RIVERS, WISCONSIN

Always say "ORAL HYGIENE" when you write advertisers.

THREE ESSENTIALS

RATIO—amount of useful work produced, to the energy expended in producing it.

ECOMONY—low cost of operation, relative or absolute, as expressed in power, value or money.

DURABILITY—the power of long resistance to wear or change.

All these three essentials are present in Ritter Dental Equipment in the highest possible degree, and the tens of thousands of Ritter Chairs, Engines, Lathes and other product in daily use are proving this assertion every day.

Descriptive literature upon request.

THE RITTER DENTAL MFG. CO.

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Accuracy

The standard of accuracy maintained in the Ritter factories is reflected in Ritter Dental Equipment and in the character of work being done with it.

Simple adjustments are provided for keeping Ritter Equipment producing just as accurate work after years of service as the day installed.

Accuracy is but one of the many features that has made Ritter Dental Equipment "distinctively different" and standard throughout the world.

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A Larger Flask for Scientific Denture Making



No. 22-C
TENCH-DONHAM FLASK

Modern dentures are made to extend onto areas heretofore disregarded. This necessitates larger casts and roomier flasks, and the No. 22-C Tench-Donham has been designed to meet these requirements. It is the heaviest and roomiest flask ever offered for use in the Donham Spring Clamp, and can be used only in the 4 1/2 inch Vulcanizer. It will

take a larger cast than the largest bolted Flask that could be designed to fit a similar Vulcanizer. The flat sloping line of proximal contact of the ring and bottom permit the grinding of these sections to a practically perfect fit. The flat guide plates are accurately fitted to machined slots, and hold the three sections of the flask in perfect relation. The front portion of the guide plate is beveled to facilitate the handling of cases with marked undercuts, by permitting the ring section of the flask to be drawn slightly forward as it is raised. This is a feature found in no other flask.

The measurements of No. 22-C Flask are as follows: Outside over all, 4 1/4 inches from side to side; 3 3/16 inches from front to back; 2 3/8 inches deep. Inside, 3 13/16 inches from side to side; 2 13/16 inches front to back; 1 15/16 inches deep. The weight of the brass flask is 2 3/4 pounds.

The added thickness of this flask will tend to protect the casts from fracture when the closing process is carelessly, or through inadvertence, forced too quickly, or before the rubber has been sufficiently softened.

It is believed the No. 22-C is the most accurate and rugged flask of the Donham type that has ever been manufactured, and that on account of the special features incorporated in its construction, it will be most useful and entirely worthy of a conspicuous position in the procession of progress in denture making which has come into being in the last few years. One flask can be used in No. 2 Buffalo Donham Spring Clamp with No. 3 Space Filler or two flasks in the No. 3 Spring Clamp.

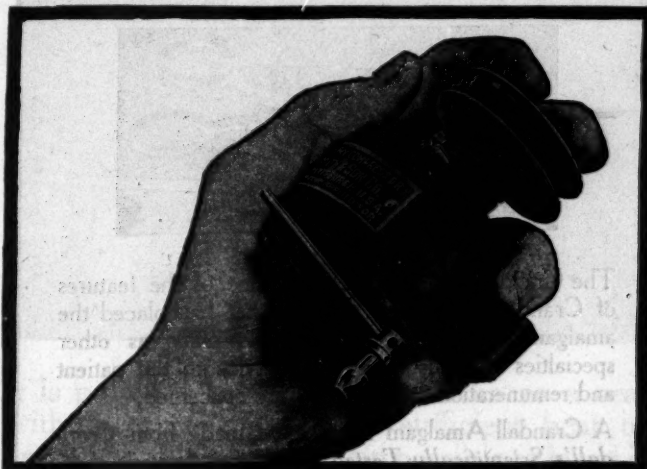
The new and peculiar features embodied in this flask were suggested by Dr. Russell W. Tench.

PRICE—No. 22-C Flask, Brass, each \$5.00
No. 22-C Flask, Malleable Iron, each 2.50

BUFFALO DENTAL MANUFACTURING CO.
BUFFALO, N. Y., U. S. A.

HONESTY TEMPORARY STOPPING

Send this "ad" and 12c in stamps to us and we will send you a sample (full size box) of the best temporary stopping you ever used.
HONESTY TEMPORARY STOPPING
Highest Quality—Full Ounce Box—Reasonable Price
 Per box 40c; 6 boxes \$1.50; 12 boxes \$2.75
FRANK A. REED MFG. CO. BELOIT, WIS.
 Your dealer has it or will order it for you



Vernon Rotary Compressor: for seven years the standard air compressor for use in the dental laboratory.

You belt it up to the lathe—turn on the juice—and there you are.

The Vernon produces a continuous flow of air the volume of which is under your control at all times.

There are three models. That illustrated is No. 1, the price of which is \$7.50.

Ask your dealer or send for the booklet.

Lee S. Smith & Son Manufacturing Co., Pittsburgh, Pa.

Crandall Matrices for Amalgam



The Crandall Copper Matrix is one of the features of Crandall Amalgam Technic that has placed the amalgam restoration on the same plane as other specialties of dentistry as far as service to the patient and remuneration to the dentist are concerned.

A Crandall Amalgam Restoration made from *Crandall's Scientifically Tested Non-Zinc Alloy* is thoroughly condensed and adapted in a carefully prepared cavity. It will restore contact and occlusion, it will be free from irritation at the gingival margin. In many cases it will give the patient better service than any other form of restoration that could be used. He will be willing to pay a very satisfactory fee for the work if its advantages are explained to him.

For further information about the Crandall Method of Amalgam Restoration, (including the use of the matrix,) and Crandall's Scientifically Tested Non-Zinc Alloy, ask for "*Standardizing the Amalgam Filling*," a seventy-two page book published for the dental profession and distributed without charge by

THE CLEVELAND DENTAL MFG. CO.
CLEVELAND, OHIO, U. S. A.



Calxine Seals Without Pressure



It is possible to insert gutta-percha as a seal without the application of sufficient heat to endanger the pulp, it is even possible to insert it without exerting pressure, but it is not possible to guard against the pressure exerted upon the gutta-percha by subsequent mastication.

Calxine is always inserted without causing pressure because it is mixed thin. After it has hardened it can not be compressed in the cavity by the force of mastication.

Even when the root canal is not involved, it is advisable to use Calxine as a seal between appointments for the protection that it affords and for the comfort that it gives the patients.

Calxine, in single-portion packages at \$1.25 and six-portion packages (six times as much) at \$6.00, is made in the laboratories of

THE CLEVELAND DENTAL MFG. CO.

Standard Forceps, Elevators
and Extracting Accessories



Crandall's Scientifically
Tested Non-Zinc Alloy

CLEVELAND, OHIO, U. S. A.

Clev-Dent Hand Operating Instruments

Metric Burs

Calxine

Vyvox

Metric Broaches

Always say "ORAL HYGIENE" when you write advertisers.



Uncle Sam insists on *standardized* products. The dental profession does not insist on *standardized* products,

But

The Goldsmith Company has seen the hand writing on the wall—and is the first to offer you a

STANDARDIZED DENTAL CEMENT **"GOLDSMITH" CEMENT (Improved)**

Every batch scientifically tested for physical and chemical properties. Here are the specifications:

☐ Penetration by Saliva at 36 degrees centigrade after 7 days, 0.041 millimeters. ☐ Contraction During Setting Period, 0.00%. ☐ Contraction After Setting Period, 0.00%. ☐ Expansion During Setting Period, 0.002%. ☐ Expansion After Setting Period, 0.00%. ☐ Crushing Strength, 20,400 pounds per square inch. ☐ Tensile Strength, 334 pounds per square inch. ☐ Adhesion to Slightly Ground Glass, 324 pounds per square inch. ☐ Amount Dissolved in Saliva at 36 degrees centigrade after 30 days, 2.01%. ☐ Amount Dissolved in 9/10 of 1% Lactic Acid, 36 degrees centigrade, after 7 days, 1.94%.

These are the measures we have adopted in order to be dead certain that every time "GOLDSMITH" CEMENT is tried we have created a satisfied customer.

Write for sample—Price per package, \$2.00; Six-color package, \$9.00
 Ask your dealer

GOLDSMITH BROS. & R. COMPANY
 907 Heyworth Building Chicago, U.S.A.

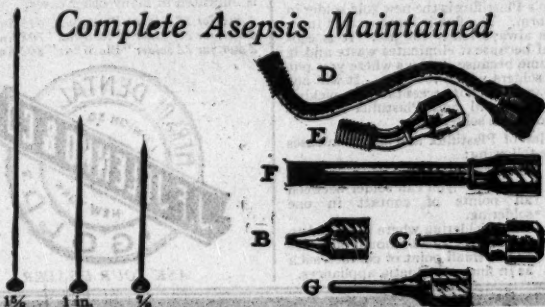
Schimmel Aseptic Dental Needles—Without Washer

Cleanest
Needles



Strongest
Needles

Complete Asepsis Maintained



Schimmel Needles are Strong! They are not soldered; are reinforced by chuck, which prevents cross-strain; they are made of the best materials and are practically unbreakable.

Schimmel Needles are Aseptic and are easily cleaned and sterilized. No washers, no obstructions, no place for infective materials to lodge.

The mountings are made of a soft metal and a thin but very strong hard-metal casing. The soft metal makes an absolutely tight joint with the end of the syringe. *Made in Steel, Nickel, Iridio-Platinum and 14K Gold.*

Would You Like to Try Them?

Just fill up and mail order-blank

Order for Schimmel Aseptic Dental Needles and Connections

Dealer's Name.....

Address.....

Please send to address below the quantity of each item indicated hereon, at prices listed. Charge my account through my dealer.

	Tubes of 6 Steel	Tubes of 6 Nickel	Tubes of 1 Gold	Tubes of 1 Iridio-Platin.
Schimmel Aseptic Dental Needles				
3/8 inch.....	at 50	at 65	at 50	at 1.00
1 inch.....	at 50	at 65	at 50	at 1.25
1 1/2 inch.....	at 65	at 75	at 75	at 2.00
Chucks 25c each B..... C..... G.....	Connections 25c each D..... E..... F.....			

My name is..... My address is.....

The Ransom & Randolph Company
TOLEDO, O. U.S.A.

Jelenko's Plastiflux: a gold solder in paste form—

Jelenko's Plastiflux is the new gold solder in paste form. The flux is incorporated in it, so it is always ready for use. It is economical because it eliminates waste and it saves time because it stays where you put it and solders where it's put. It will not rise up and fall, nor necessitate you picking it up. You will find Plastiflux splendid for all delicate soldering.

Get a jar of Plastiflux and use it in cases like the following:

- No. 1. In soldering contact between band and cusp—you can solder between all points of contact in one soldering.
- No. 2. In all soldering where it is hard to keep a very small amount of solder on in a small point of contact, such as in fine orthodontia appliances.

No. 3. When gold solder is indicated—because Plastiflux is very valuable as a leader or a flux. Plastiflux being granulated can be placed where it is difficult to solder, acting as a leader when ordinary solder is ready to be introduced.

No. 4. When soldering a deep cusp of a close bridge.

No. 5. Between floor of the backing of a Richmond or Darby Crown.

No. 6. Between pieces of swaged gold plate.

No. 7. In soldering tail piece to a clasp.

As you work with it you will find its use is indicated in many other cases.

2 dwt. jar 18 solder "Plastiflux" 615 fine \$2.00

2 dwt. jar 20 solder "Plastiflux" 708 fine 2.25

2 dwt. jar 22 solder "Plastiflux" 802 fine 2.50



ASK YOUR DEALER

STRONGEST CROWN CEMENT BRITTON'S

Always say "ORAL HYGIENE" when you write advertisers.

Why the Navy Department chooses White Enamel Pressed Steel Cabinets—No. 4



The enamel neither turns yellow, chips, crazes nor peels off. The surface is absolutely smooth. After the cabinet is sand-blasted the enamel is *sprayed* on under heavy pressure.

This provides even distribution and eliminates brush marks.

The enamel used is made under a special formula.

**LEE S. SMITH & SON MFG. CO.
PITTSBURGH - PENNSYLVANIA**

(This is No. 4 of a series. No. 5 will deal with **FIRING THE ENAMEL**.)

Conservation of Tissue

is the groundwork of the

ORYL SYSTEM

for the successful treatment of pyorrhea



Non-toxic
Non-astringent

Non-escharotic
Non-irritating

Stimulates

Without destructive irritation—Helps nature to help herself

SAMPLES PROVE IT

Dental Products Company

5 So. WABASH AVENUE

CHICAGO

HIM

Tartar Solvent-Stain Remover.

Some test

Extracted teeth soaked in HIM for months without affecting the enamel.

Save half your time cleaning teeth.

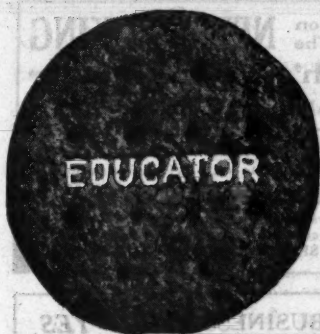
HIM softens the deposits and removes the stain.

Price \$2.00 bottle.

Introductory offer:

Send \$1.00 direct for regular \$2.00 bottle for trial.

Byron M. Fell, D. D. S.
1328 Chestnut St., Phila., Pa.



**Doctor, let us suggest
EDUCATOR
Bran Cookies**

as a convenient form of giving bran.
May we send you a sample?

**EDUCATOR
CRACKERS**

**JOHNSON EDUCATOR
FOOD COMPANY
49 Educator Building
BOSTON**

**Kerr Perfection
Impression Compound**

*for taking ordinary or
"correctable" impressions*

Supplied in cakes as shown. Also in
sticks, base plates and wafers.



Softens easily. Hardens quickly, and
when hard is inflexible.

Takes a clean, sharp impression; shows
every detail. Will not warp or creep.
Ideal material for taking impressions,
re-fitting plates and for inlay work by
direct method.

At all Dental Depots
Manufactured by
Detroit Dental Mfg. Co.
Detroit, Mich., U. S. A.

**Isn't this
so, Doctor?**

—Isn't the dentist's skill liable
to be questioned later on, if
the patient is allowed to go
away, not knowing how best
to care for the teeth and keep
the tissues in a healthy con-
dition?

The patient's requirements
between visits to his dentist
have been a life study with us
—we make precisely what is
wanted to emphasize your good
work.

SANITOL
**TOOTH
POWDER OR PASTE**

is quite as cleansing and other-
wise efficient as a dentifrice
can be—and more: As its pure
white color indicates, it is a
pure product—wholly devoid
of grit—no drug-store taste or
odor—no coloring matter to
disguise the presence of dubi-
ous ingredients.

The mouth wash to use at
the chair and recommend to
patients is the Sanitol Anti-
septic Mouth Wash. Tests
highest as a germicide; at the
same time, it positively con-
tains no mineral acid or
anything else whose action
might make mischief.

If you are not already con-
vinced of the superiority of
our dental preparations, write
and let us send you, free, the
Sanitol Dentists' Combination
Office Package.

**SANITOL CHEMICAL
LABORATORY CO.**

ST. LOUIS U. S. A.

DENTISTS Your Attention Is Called To The NEW PACKING

5 and 10 lb. paper cartons
with metal screw tops of

French's Dental Plaster

SAMUEL H. FRENCH & COMPANY :: Philadelphia, Pa.

WANTED! Every dentist in America to write us for a free sample of **PUSTOLENE** Abscess Cure and Root Canal Filling, known Abscess Cure on earth. 15 years continued success in the hands of thousands of dentists prove our claims correct. All Dealers, \$1.00 per box. Write us today for free sample. **J. A. SPRAGUE & CO., Columbus, Ohio**

MUST A DENTIST BE A BUSINESS MAN? YES
THE DR. L. C. SIRKUS CARD INDEX SYSTEM helps them all
ACCURATE TIME SAVING CONCISE

Price \$7.50 complete
Sample card upon request

SIRKUS AND SIRKUS
West New Brighton, N. Y.

LEARN MECHANICAL DENTISTRY IN CHICAGO

This is the best opportunity ever offered to men and women of all ages to rise from positions having no future, to a profession of unlimited possibilities. Taught in 3 to 12 months according to attendance. We are constantly called upon to fill good salaried positions. No book study. Evening sessions. Individual instruction. You can earn before completion of the course. Tuition payable in installments. Send for catalogue No. 52. **NATIONAL SCHOOL MECHANICAL DENTISTRY, 606 S. Wabash, in Chicago**

Ammonium Fluorid not only starts— it finishes

Ammonium Fluorid is the successful pyorrhea specific because it is not only a solvent and an astringent—it is also an antiseptic.

It is the solvent, astringent, antiseptic remedy—combining these qualities in one preparation.

Get Ammonium Fluorid.
Use it.

Watch results.

Results! That's why Army dentists are requisitioning Ammonium Fluorid. They have already used it and they know!

Price \$1.00 per bottle

Ask your dealer or
Metalline Mfg. Company
1216 O Street, Lincoln, Neb.



Don't Experiment

any more. Don't go along week after week and month after month thinking you have the best nerve paste if you have never tried Dearborn. A

Try
It Free

real surprise is awaiting you. Make your work easier by ordering a small jar today.

Dearborn Nerve Paste

Desensitizes Dentine and Devitalizes Pulp without pain. See for yourself what it will do. Your supply dealer has it. Order a jar today. If it isn't better than anything you have ever tried, don't pay a cent for it. Use a Harrison Narcotic Blank when ordering. No samples. Price \$1.50 if it satisfies, not one cent if it doesn't. In Canada, \$1.75. **HALL DENTAL SUPPLY CO.**
222 N. Wabash Ave., Chicago, Ill.

JANUARY, 1918, should be begun with at least one new idea implanted in your mind.

We believe there is no better idea you can absorb than to begin treating Pyorrhea

The Ultra Way

which is to bear in mind the fact that you are treating *living* tissue, not *dead* tissue. The use of astringents and escharotics is harmful rather than beneficial.

Treat Pyorrhea pockets the same as any infected wound, first, by removing foreign substances, then assist nature with a stimulant to repair diseased tissue, and build up new tissue. The stimulant you should use is ULTRA, *because*

ULTRA penetrates

is germicidal, and the tissues respond to the treatment so quickly that it is a pleasure to treat Pyorrhea. All we ask is that you give ULTRA a trial.

Money refunded if not satisfied.

Don't forget to use ULTRA for desensitizing cavities too. It dries and desensitizes. It is not harmful. You'll like it. No expensive outfit necessary when you use ULTRA. No samples. Direct or thru dealer. \$1.50. Ask for literature.

The Ultra Company, Not Inc.

25 E. Washington Street :: Chicago, Illinois

Statistics Show There Are Too Many False Teeth

Loose teeth are mostly due to the neglect of the gums. They bleed, recede, and the teeth become infected, false teeth take their place.

The only remedy—a regular attendance to the dentist, and the use of a dentifrice which is an effective cleansing and antiseptic agent.

Sixty years has proven that SOZODONT has real merit. You cannot fool the people all of the time. SOZODONT does all and more than we claim for it.

Doctor, are you fooling yourself by not putting SOZODONT to the test? Do it today. Tell your patients to use SOZODONT. You will get results.

SOZODONT is made in three forms—

SOZODONT Paste—SOZODONT Liquid
SOZODONT Powder

HALL & RUCKEL

218 Washington Street
NEW YORK, N. Y.

CONSOLIDATED VULCANIZER

—IS TEN-FOLD SAFE

—OPERATED WITHOUT USING FORCE

—UNMATCHED FOR EFFICIENCY

Safety first, last, and all the time, is important to consider when you buy a Vulcanizer. Far safer than need be is the CONSOLIDATED VULCANIZER.

We removed the safety valve, inserted a plug in its place, and tested it at 1000 lbs. per square inch pressure. It withstood the test perfectly.

The floating type of cover is 100% right on both scientific and mechanical principles. It is secure, pressure-equalizing, non-leaking. A turn of the knob tightens the cover and makes it steam-tight all around.

The Leading Colleges and Laboratories Use It

The strength of the CONSOLIDATED VULCANIZER is the result of correct design, and the best materials and workmanship. We use forgings where other manufacturers use castings. We use a heavy, seamless, drawn copper pot where others use cast pots or brazed tubing with brazed bottoms.

The fittings are the best obtainable. A safety valve, blow-off valve, thermometer, and mercury bath are attached to the cover. Heating apparatus as desired for

GAS, KEROSENE OR ALCOHOL

Always say "ORAL HYGIENE" when you write advertisers.

THE FINAL TEST



Each one is tested before it leaves the factory.

The floating type of cover overcomes cover troubles and does away with the need of using force.

PATENTED

**Not Enough Vapor Escapes Through The Packing
To Dim A Mirror—**

“SAFETY FIRST”

WRITE “VULCANIZER” ON A POST CARD AND
GET ILLUSTRATED BOOKLET

CONSOLIDATED  DENTAL MFG. CO.

10 WASHINGTON PLACE, NEW YORK

Always say “ORAL HYGIENE” when you write advertisers.

KLORAMIDE

"Para-Toluene-Sodium-Sulphochloramide" (Dakin's New Synthetic Antiseptic)

Kloramide—is stable in Powders, Tablets. Solution made with fresh distilled water and kept in amber bottles Retains Its Stability Indefinitely.

The Greatest Advantage of Kloramide over the so-called Dakin's Hypochlorite solution is that the Kloramide is perfectly neutral and stable, while the Dakin's hypochlorite solution may be neutral when freshly prepared but is not stable. Another advantage of Kloramide over the Dakin's hypochlorite solution is that it presents the Nitrogen Chlorine, NCl (the germicidal agent) already formed, while this NCl, when using hypochlorite solution, is formed only after the hypochlorite has come in contact with the protein matters, thereby liberating chlorine, which, in nascent state, combines with the Nitrogen in the protein matter, forming nitrogen chlorine. Kloramide solution cannot, however, be said to have any better action than Dakin's hypochlorite solution made up to perfection. But the preparation of this hypochlorite solution requires great care and the skill of an experienced chemist, and if it is not perfectly neutral it will cause irritation, and since it deteriorates very rapidly—it is only safe to use it when freshly prepared.

Kloramide—5 gr. Tablets are made to meet the convenience of the operator in preparing Dakin's new synthetic antiseptic (Para-Toluene-Sodium-Sulphochloramide) solution, and contains the required amount of Kloramide to make one ounce of a one per cent solution of Kloramide and the required amount of sodium chlorite to make the solution contain the proportion of salt present in physiologic salt solution.

Kloramide—Cream for dressing pyorrhea pus pockets, tooth sockets after extraction, and massaging diseased gum tissues.

Kloramide—Dental Package contains 1 bottle 50 1 gr. Kloramide tablets.

Kloramide—Dental Package contains 1 bottle 50 1 gr. Kloramide Aromatic Tablets for patient's home use.

Kloramide—is not an experiment in Dentistry, as it is being used by thousands of Dentists in America, many of whom at the National Dental Association meeting in New York in October reported gratifying results obtained from the use of Kloramide solution and Cream in treatment of Pyorrhea, Abscesses, Antrum Trouble and Extractions.

As an inducement to those who are not familiar with Kloramide to give it a trial, we are making a special direct offer of 1 Bottle of 100 5 gr. Kloramide tablets and 1 tube of Kloramide Cream for one dollar.

Kloramide Products can be quickly obtained from Dental Supply depots or direct.

Write Today for Booklet,
"Technique for using Kloramide in Dentistry."
It contains facts that should be read by all users of Dakin's solution.

Kloramide 5 gr. tablets, bottle of 100.....	\$1.25
Kloramide 5 gr. tablets, bottle of 500.....	5.00
Kloramide Dental Package.....	1.00
Kloramide Cream, per tube.....	.50

**The W. Lee Henry
Laboratory**

Address,
5139 Cullom Ave. CHICAGO, U.S.A.

TRIAL OFFER CHECK

Fill out this check and use it for your remittance. It will be your receipt and guarantee.

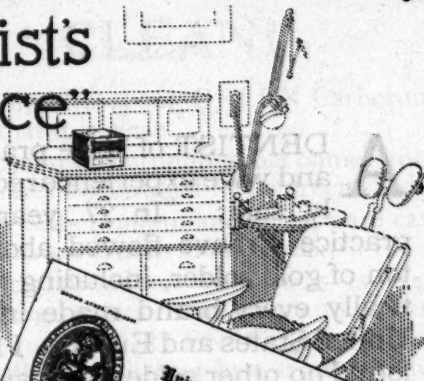
To the
Pay to the City
Order of *The W. Lee Henry Laboratory* Date
This check is in payment for 1 bottle of 100 5-gr. Kloramide Tablets and 1 jar of tube of Kloramide Cream. Special trial offer. If for any reason the purchaser from whom this check is accepted is dissatisfied, money will be cheerfully refunded.
The W. Lee Henry Laboratory, Chicago, Ill.
Address: 5139 Cullom Avenue.

Write the Name of Your Bank on This Line
Date
Check No.

One and 00/100 Dollars \$1.00

Sign Your Name Here

"should be in every
dentist's
office"



University of Tennessee
College of Dentistry
715 Ross Avenue
Memphis, Tenn.
November 2, 1917.

Ellis-Jones Drug Co.,
Memphis, Tennessee,
Gentlemen:-

I am glad to report that the Dental Department of the University of Tennessee has been using Prophylax-O Tablets (hardener) for over a year. They were adopted after having been thoroughly tested as to their practicality as adapted to their every day use in the practice of dentistry.

I found Prophylax-O Tablets to contain the essential ingredients that make an ideal, well balanced dentifrice. They combine three essentials in one, an abrasive agent, a polishing agent and an antiseptic tonic. I found that they were economical, convenient and a time saver in my opinion. Prophylax-O Tablets should be in every dentist's office.

Very truly yours,

D. M. Carter
Registrar.

Prophylax-O
Tablets are used
and endorsed by leading
dental surgeons and colleges.

Ellis-Jones Drug Co.
Memphis - - Tenn.

Please send
me a sample
of Prophylax-O Tablets

A DENTIST of large practice and wide experience recently said: "In 27 years of practice I have flowed about a ton of gold solder, including practically every brand made in the United States and Europe. I have found no other solder so easy and delightful to work, so adaptable, as Vernon's. I never saw anything like it for flowing."

Send for a
copy of The
LURE OF THE
LAWS OF GOLD



Vernon Gold &
Refining Company
Commercial Bldg.
Pittsburgh, Pa.

CLEAN!

The big idea about GREEN Carborundum is that it is clean.

The purest carborundum that comes from the furnaces is identified by its green shade.

Green carborundum and clean, pure carborundum are synonymous terms.

Pure carborundum—because it is free from foreign matter—cuts faster and cooler.

Consequently GREEN Carborundum points, wheels and discs best serve the exacting requirements of Dentistry.

Green Carborundum is made by
The Carborundum Company
Sole Makers of Carborundum

Sole Sales Agents



Ask your dealer

Dentalone

**A Local Anesthetic, Disinfectant and Antiseptic
for Use in Dental Practice.**

Dentalone is a saturated solution of Chloretone (approximately 33%) in the oils of cloves, cassia and wintergreen.

Dentalone is particularly serviceable in odontalgia, its anodyne effect, when applied to exposed nerves in decayed teeth, being markedly prompt. It is used without dilution.

Dentalone is also of value in the treatment of sensitive dentine, painful and inflamed tooth-sockets, etc., and as a solvent for arsenic paste.



Dentalone has this decided advantage over creosote, carbolic acid and similar products: it is inoffensive to the most sensitive individual. Creosote and carbolic acid, in taste and odor, are nauseating to many patients. They create an unpleasant atmosphere in the office. **Dentalone** is pleasing to the taste. It has a delightful aroma.

Supplied in ounce glass-stoppered bottles.

ORDER FROM YOUR DRUGGIST OR DENTAL DEPOT.

Home Offices and Laboratories,
Detroit, Michigan.

Parke, Davis & Co.

Always say "ORAL HYGIENE" when you write advertisers.

DENTISTS, like other intelligent men, usually are influenced in their decisions by results, and results come from actual experience.

At a recent large—perhaps the largest—dental convention, over 80% of the callers at the DIOXOGEN booth had a good word for DIOXOGEN, and this good word was based on actual experience, not hearsay.

All these dentists did not have the same thing to say, for most of them had some way of his own of using DIOXOGEN, but the significant thing was the note of hearty approval that ran through each man's endorsement.

Perhaps dependableness and freedom from irritating quality was the dominant note.

Not a few emphasized the superiority of DIOXOGEN over ordinary peroxide.

So far, nothing has interfered with our ability to supply DIOXOGEN; war conditions are making it difficult, but no change has yet been made in either quality or price.

The Oakland Chemical Company

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Every Cloud a Silver Lining Every Plate a Roscinian Lining

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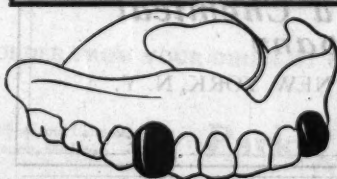
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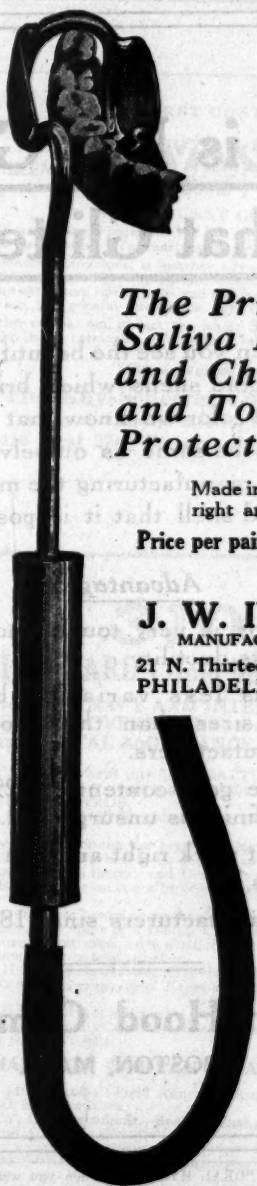


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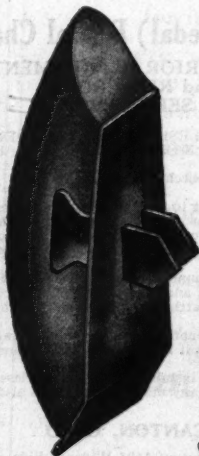
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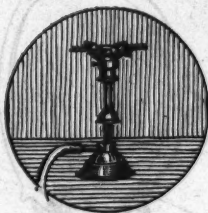
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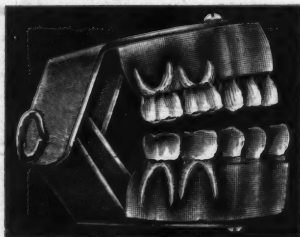
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Figure 1

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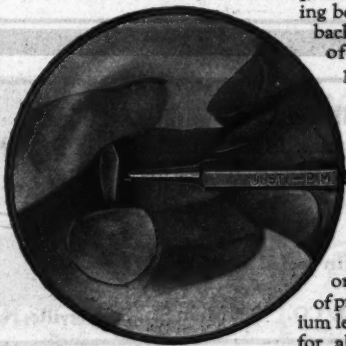


Figure 2

PRICE 40 CENTS PER TOOTH

Quantity rates on application

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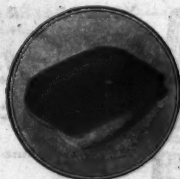


Figure 3

You can trust your reputation with a broach that has one

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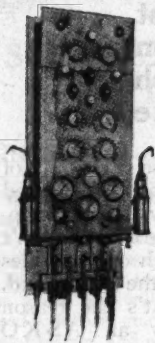
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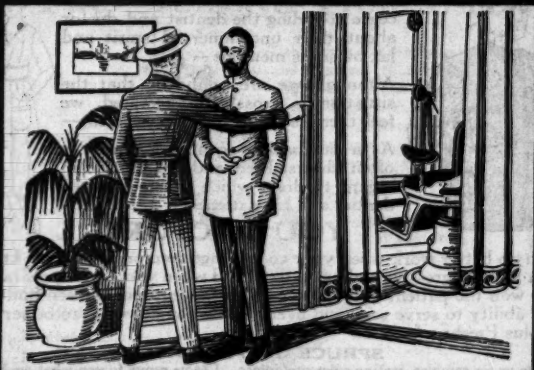
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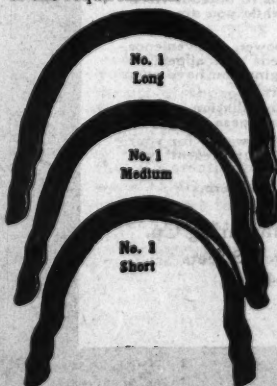
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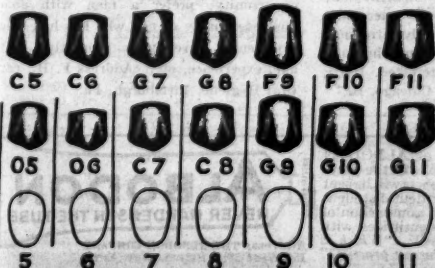
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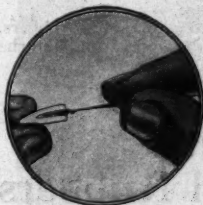
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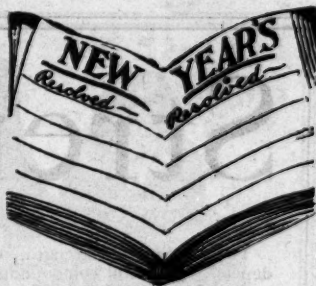
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An imperfect, granular, lumpy mix of cement wastes your time. We take it for granted that you make your inlays fit—that you have left no room under them or around them. Lumpy or granular cement will hold them from position and will necessitate the re-burnishing of borders and the re-grinding of the articulation. This may require five minutes or twenty minutes, but the time is wasted and you can save this waste of time by using S. S. White Oxyphosphate Zinc Cement.

It mixes easier and smoother and there are no lumps or granules. All the powder is incorporated with the liquid into a perfectly smooth, creamy mass.

S. S. White Oxyphosphate Zinc Cement

Six colors. Liquids for three speeds of setting.
Two convenient packages.

Mahogany Six-Color Cabinet . . . \$10.00
Single-ounce Package . . . 2.00

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For sale by Dental Dealers and at our Houses.

The S. S. White Dental Mfg. Co.

"Since 1844 the Standard"

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Which Do You Buy?

WHEN you ask your dealer for a roll of rubber dam, which thought is uppermost in your mind—quality and durability—or cheapness?

The longer you continue to buy cheap rubber dam, the more it will cost you in the long run.

Highest quality and continuous durability are represented **only** by

Doherty's "Vapor Cured" RUBBER DAM

which has been recognized by the profession as the best for over half a century. Costs more because it's worth it.

PRICES:

Medium, per 6-inch by 18 foot roll	:	:	:	:	:	\$1.75
Medium, per 6-inch by 9 foot roll	:	:	:	:	:	.90
Thin, per 6-inch by 18 foot roll	:	:	:	:	:	1.35
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No guess work

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Their superiority of renewing cup with others is apparent at a glance.

Comparison sells it—you need no extras—easily attached—on and off in a second by patient.

GIVE THEM A TRIAL—THAT IS ALL WE ASK
Upper or Lower, \$2.00 per box of six

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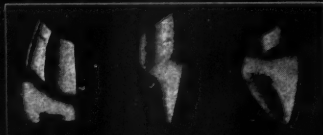
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Will make you a beautiful Sanitary Porcelain Bridge for \$125 per tooth to introduce the Todd Bridge Teeth. We Stand Behind Our Work. Send model with Crowns Mounted. We will do the rest. Try our teeth.

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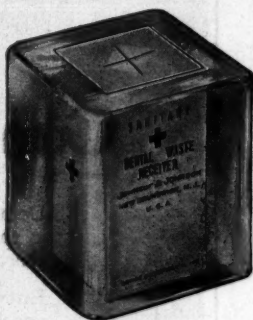


*Improved
Glass Cotton Font
Ground Glass Cap*

The two items here shown will prove their convenience more times per day; will be of greater assistance in maintaining an orderly and cleanly operating table, and will give you more satisfaction for the amount invested than anything in a full modern equipment. We do not think this is any exaggeration. Ask the man who is using them. He is easily found.

The breech-loading principle of the Font with a complete package of continuous feed cotton of unequalled quality and the self-closing cardboard carton of the Waste Receiver that is destroyed with its contents after use are original features that make these two articles superior to all others for the purpose.

Your dealer will show them to you.



Sanitary Dental Waste Receiver

Aseptic Glass Cotton Font, loaded with one package Dentoform Cotton . . . 90c.
Dentoform Absorbent Cotton, Continuous Feed Cylinders . . . each 10c.
Sanitary Dental Waste Receiver, Glass Base and six Waste Cartons . . . 50c.
Extra Waste Cartons, flat, packages of fifty . . . 50c.

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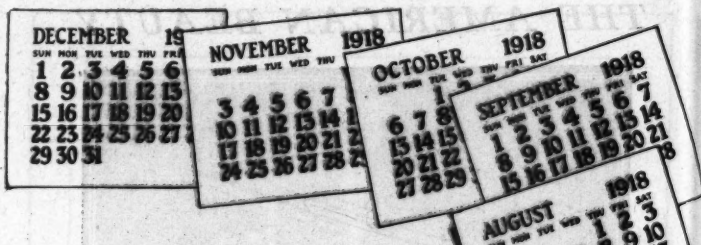
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